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Alaska Department of Fish and Game
Division of Commercial Fisheries
333 Raspberry Road
Anchorage, Alaska 99518

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Subsistence and Personal Use Salmon Harvest Estimates Yukon Area, 2000

by

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ABSTRACT

The Yukon Area includes all waters of Alaska within the Yukon River drainage and all coastal waters of Alaska from Point Romanof southward to the Naskonat Peninsula. Successful management of Yukon Area fishery resources is dependent upon obtaining accurate estimates of salmon harvests from the various fisheries the river supports. This report documents the subsistence and personal use harvests within the Yukon Area.

In some portions of the Yukon Area, fishermen are required to obtain an annual subsistence household permit prior to salmon fishing. However, in the majority of the Yukon Area no regulatory requirements exist for fishermen to report their subsistence salmon harvest. To estimate the subsistence salmon harvest from villages in non-permitted areas, the department has implemented a voluntary survey program. The 2000 survey program utilized subsistence harvest calendars, postseason household interviews, household telephone interviews and postal questionnaires. Stratified random sampling techniques were used to select Yukon Area households to be interviewed. Surveyors contacted 967 households in the surveyed villages throughout the Yukon Area in 2000. Information provided by these surveyed households was expanded to estimate the harvest of households that were not contacted. A total of 29,282 chinook (*Oncorhynchus tshawytscha*), 86,259 chum (*O. keta*), and 6,680 coho salmon (*O. kisutch*) were estimated as harvested by subsistence households in the survey portion of the Yukon Area in 2000. The chum salmon run consists of an early (summer) and late (fall) run. The chum salmon subsistence harvest was differentiated by its two distinctive runs and totaled 71,429 summer chum and 14,830 fall chum salmon.

In designated permit areas, fishermen are required to document their harvest on a permit and return the permit to the department at the end of the fishing season. A total of 357 households were issued subsistence permits in 2000, and 338 permits or 95 percent were returned at the time of this report. Of the total number of returned permits, 154 households indicated they had fished. The reported subsistence permit harvest was 4,270 chinook, 1,668 summer chum, 351 fall chum, and 5,182 coho salmon. This reported harvest does not include household permit harvest information from Stevens Village. Stevens Village permit harvests are incorporated with the harvest information collected during the postseason surveys.

One non-subsistence area, located within the Yukon Area, is monitored for salmon harvests with household personal use permits. A total of 73 household personal use permits were issued and 71 were returned in 2000. Of the returned permits, 16 households indicated that they fished. The reported personal use harvest was 75 chinook, 30 summer chum and one fall chum salmon.

The number of fish provided to households for subsistence use from Yukon Area test fish projects are documented in this report. In 2000, a total of 2,852 chinook, 4,975 summer chum, 4,214 fall chum, and 3,077 coho salmon were provided to households for subsistence use from test fishery projects.

Combining survey, permit, and test fishery information, an estimated 1,410 households participated in the Yukon Area subsistence and personal use fisheries in 2000, harvesting an estimated 36,479 chinook, 78,102 summer chum, 19,396 fall chum, and 14,939 coho salmon.

INTRODUCTION

The Yukon Area includes all waters of Alaska within the Yukon River drainage and all coastal waters of Alaska from Point Romanof southward to the Naskonat Peninsula (Figure 1). For management purposes, the Yukon Area is divided into seven districts and ten subdistricts. The Lower Yukon Area consists of the coastal waters of the Yukon Area and the Yukon River drainage from its mouth to Old Paradise Village (Yukon River mile 301). The Lower Yukon Area is divided into four districts; the Coastal District and Districts 1, 2 and 3. The Upper Yukon Area consists of the Yukon River drainage upstream of Old Paradise Village to the Canadian border (Yukon River mile 1,224) and is divided into Districts 4, 5 and 6.

Five species of Pacific salmon are found in the Yukon River drainage: chinook (*Oncorhynchus tshawytscha*), chum (*O. keta*), coho (*O. kitsutch*), pink (*O. gorbuscha*), and sockeye (*O. nerka*) salmon. Chinook, chum and coho salmon compose the majority of subsistence and personal use harvests. The chum salmon return consists of an early (summer chum) and late (fall chum) salmon run.

The purpose of this report is to document the 2000 Yukon Area subsistence and personal use salmon harvests, and to provide historical perspective concerning the development of the fishery. The estimated number of salmon harvested in subsistence and personal use fisheries within the Yukon Area is required to effectively manage the salmon resource. Yukon Area subsistence salmon fishery and harvest information has been collected by the Alaska Department of Fish and Game (department) since 1961 (ADF&G 2001). Documentation of the subsistence harvest prior to 1961 is limited. However, early exploration reports attest to the importance of subsistence salmon harvests to people living in the Yukon River drainage (Zagoskin [1847] 1967; Allen 1887). Historical accounts document the use of large salmon harvests to support dogs, which were used for transportation and packing (Richardson [1900] 1964; Gilbert and O'Malley 1921). Around 1930, the airplane began replacing the sled dog as a primary mail and supply carrier, which contributed to a gradual reduction in the need for subsistence salmon for dog food. Additionally, the introduction of snow machines during the 1960s accelerated the decline of sled dogs and the associated need for subsistence salmon harvests to feed them.

During the early 1970s, additional employment opportunities, including commercial fishing activities, became available to rural residents (ADF&G 1985). From 1974 through 1977, the sale of subsistence salmon roe was legalized. The slight increase in subsistence harvests observed during those years likely resulted from the legal sale of subsistence salmon roe. Beginning in the early 1980s, an interest in the recreational use and racing of sled dogs was renewed. As the number of dogs increased throughout the drainage, the corresponding need for subsistence salmon to feed dogs also increased. Based on recent survey information, the practice of keeping sled dogs is more common in the Upper Yukon Area than in the Lower Yukon Area. The number of dogs within a household is considered to be a major factor affecting the amount of subsistence salmon that a household needs.

Numerous rural communities are located along the coast and major river systems within the Yukon Area. The residents in these rural communities are primarily of Yupik Eskimo and Athabaskan

Indian descent. Excluding the greater Fairbanks area (approximately 84,000 people), the most recent census indicates the rural resident population of the Yukon Area in 1999 was approximately 21,600 people (Williams 2000). The recent five-year (1994 to 1998) average population of rural residents within the Yukon Area, excluding the greater Fairbanks area, has remained stable at approximately 21,000 people. An increase in population within the rural communities could increase the need for subsistence salmon.

Subsistence and Personal Use Salmon Fishery Description

Yukon Area subsistence salmon fishermen primarily use drift gillnets, set gillnets, and fish wheels to harvest salmon. Set gillnets are utilized throughout the Yukon Area. Drift gillnets are used extensively in the Yukon River drainage from the mouth to the middle Yukon area (river mile 0 to 514, 18 miles below Galena). Although fish wheels are a legal gear type for subsistence fishing throughout the drainage, they are essentially used only in the Upper Yukon Area, where an ample supply of wood for construction and operation of such gear is available.

Subsistence salmon fishing activities in the Yukon Area primarily occur from late May through early October. However, salmon fishing in May and October is highly dependent on ice conditions on the river. Fishing activities are usually based from a fish camp or a home village. Extended family groups, representing two or more households, often work together to harvest, cut, and preserve salmon for subsistence use. Some households from communities not located along the mainstem Yukon River, such as Shageluk, operate fish camps along the mainstem Yukon River.

The majority of subsistence and personal use salmon harvested in the Yukon Area originates from stocks within the Yukon River drainage. Communities within the Coastal District also harvest stocks bound for other areas. Since 1992, the department has conducted subsistence surveys in the Yukon Area coastal villages of Hooper Bay and Scammon Bay. Based on a salmon tagging and recapture study conducted in 1986 (Kerkvliet 1986), the residents of Hooper Bay and Scammon Bay harvest primarily Yukon Area chum and pink salmon stocks. The tagging study documented that Norton and Kotzebue Sound salmon stocks were also present in the area.

A significant portion of harvested salmon is frozen, dried, or smoked for later human consumption. The majority of the large (greater than 16 inches in length) chinook salmon is used for human consumption. A large proportion of the small chinook salmon, often referred to as "jacks," is used for human consumption, although a significant proportion is also used for dog food. Summer chum, fall chum, and coho salmon are also used for human consumption, but a relatively large percentage of these salmon are harvested to feed dogs. Dogs are often fed scraps that become available during the processing of freshly harvested salmon, and relatively few whole fresh salmon are fed to dogs. The majority of summer chum salmon is dried for a winter supply of dog food. Additionally, fall chum and coho salmon are commonly "cribbed" for dog food. Cribbing is the freezing of fish by natural air temperature for use later in the winter. There is usually little wastage of fish taken for subsistence purposes, although damp weather may cause some drying fish to spoil.

Personal use fishermen primarily use set gillnets or fish wheels to harvest salmon. Currently, personal use salmon fishing is allowed only within a portion of the Tanana River drainage located near Fairbanks. Salmon fishing activity in this area typically occurs from late June through early October. Only Alaska residents are eligible to participate in personal use fisheries. Fish caught in the personal use fishery can only be used for human consumption or for use as bait by that individual or his immediate family. Personal use caught fish cannot be fed to dogs or other animals (White 1991, Memorandum).

Many subsistence or personal use fishermen also participate in the commercial salmon fishery. During the Yukon Area commercial salmon fishing season, additional restrictions on subsistence and personal use salmon fishing are required to assist in the enforcement of commercial fishing regulations. However, during a typical salmon fishing season, substantially more time is allowed for subsistence and personal use salmon fishing than for commercial fishing. Throughout the early history of the Yukon Area commercial salmon fishery, commercial and subsistence fishing periods coincided. However, in 1993 the Alaska Board of Fisheries adopted regulations to separate subsistence and commercial salmon fishing times in Districts 1, 2, and 3 and in the lower portion of District 4 (Subdistrict 4-A). In these areas, subsistence salmon fishing is allowed seven days per week but may not occur 24 hours prior to the opening of the commercial salmon fishing season. It should be noted that in regulations there is a distinction between commercial fishing seasons and periods. By regulation, once the commercial salmon season is open, subsistence salmon fishing may not occur 18 hours immediately before, during, and 12 hours after each District 1, 2 or 3 summer season commercial salmon fishing period. During the fall season in Districts 1, 2 and 3, subsistence salmon fishing may not occur 12 hours immediately before, during, and 12 hours after each commercial fishing period. In Subdistrict 4-A, subsistence salmon fishing may not occur 12 hours immediately before, during, and 12 hours after each commercial salmon fishing period throughout the season.

In the upper portion of District 4 (Subdistricts 4-B and 4-C) and in Subdistricts 5-B and 5-C, subsistence salmon fishing is allowed seven days per week until 24 hours prior to the opening of the commercial salmon fishing season. In these areas, subsistence salmon fishing periods coincide with commercial salmon fishing periods. Additional subsistence-only salmon fishing periods are also allowed during the commercial salmon fishing season. In Subdistrict 5-D, subsistence salmon fishing is allowed seven days a week.

In Subdistrict 5-A, subsistence fishing is similarly allowed seven days a week until 24 hours prior to the opening of the commercial salmon fishing season. However since 1994, excluding 1998, the subsistence fishing schedule in Subdistrict 5-A allows subsistence fishing five days a week after the closure of the commercial salmon fishing season. In 1998, the Alaska Board of Fisheries relaxed restrictive elements of the Toklat River Fall Chum Salmon Rebuilding Management Plan and allowed residents in Subdistrict 5-A to subsistence salmon fish seven days a week. When the escapement objectives were not met, the restrictive elements were reinstated and subsistence fishing in Subdistrict 5-A was once again reduced during subsequent seasons.

Since 1988, subsistence and personal use fishing within the lower Tanana River drainage (currently subsistence fishery in Subdistricts 6-A and 6-B and personal use salmon fishery in Subdistrict 6-C,

Figure 1) are allowed for two 42-hour periods per week unless altered by emergency order. In the upper Tanana River drainage, subsistence fishing is allowed seven days a week.

History of Survey and Permit Methodologies

Subsistence harvest surveys have been conducted annually by the department since 1961. Survey methodologies prior to 1988 were varied, although in all cases surveyors attempted to census all known fishing families in a village. A fishing family was defined as one or more households that fished together. The department's Division of Subsistence standardized the survey methodology in 1988 (Walker et al. 1989). In each community, all households were identified and stratified into those that "usually fish" and those that "usually do not fish." Subsistence salmon harvest surveys utilized personal or telephone interviews, harvest calendars, and mailed questionnaires to collect household information. Subsistence harvest information gathered through these surveys was expanded for non-contacted fishing households to provide an annual community estimate.

In 1990 and 1991, the method for stratifying households was refined by the Division of Commercial Fisheries to improve the accuracy and precision of the subsistence harvest estimate (Holder and Hamner 1991; Bromaghin and Hamner 1993). Since 1990, households have been classified into one of five categories. These categories consist of households that are light, medium, and heavy harvesters, those that do not harvest salmon and those with unknown harvest levels. The 1990 through 1995 use group classifications were based on the household's annual harvest estimates available since 1988. Beginning in 1996, use group classifications have been based on the average harvest of two recent years within the most recent three-year period and excluding years with subsistence restrictions or closures. A random sample (Cochran 1977) is drawn from the strata formed by combinations of village and harvest levels. The current method assumes that households tend to harvest at the same level in the year being surveyed as they have in recent years. The current design samples households with a recent history of large harvests more intensively.

Data analysis from 1990 to 1995 included using the district's variance to estimate a stratum's variance if only one household was contacted in the stratum. In addition, the district's mean and variance was used to estimate a stratum mean if no households were contacted in the stratum. Since 1996, if only one household was contacted in a stratum, the stratum variance was not estimated. In addition, if no households were contacted in a stratum, the mean and the variance were not estimated.

Permits for subsistence and personal use salmon fishing are required in select areas of the Upper Yukon Area. The areas that require salmon fishing permits and the type of permit required (subsistence or personal use) have varied through time. The first annual subsistence permits were issued in 1973. Personal use permits have only been required in select areas since 1987. From 1973 until 1994 permits were required for the harvest of salmon carcasses within the Delta River (Borba and Hamner 1998). In November 1994, the Board of Fisheries adopted regulations that closed the lower portion of the Delta River to the collection of salmon carcasses. Permits are currently required for subsistence fishing in the Yukon River drainage between Hess Creek and the Dall River (Yukon

River bridge area) and between the upstream mouth of Twenty-Two Mile Slough and the Canadian border; subsistence and personal use salmon fishing within the Tanana River drainage; subsistence fishing and personal use whitefish (*Coregonus* spp. and *Prosopium* spp.) and sucker (*Catostomus catostomus*) fishing in the upper Tanana River drainage; and subsistence northern pike (*Esox lucius*) fishing in the Tolovana River drainage. In permitted areas, households are required to obtain a permit prior to fishing and return the permit at the end of the season with a record of the harvest. The department uses the information collected from permitted households to document the harvest in these areas.

History of the Personal Use Fishery

Personal use fishing is considered a lower priority use of the resource than subsistence fishing. Prior to the development of personal use fisheries, all residents of Alaska were eligible to fish anywhere in the state under subsistence regulations. However in 1986, subsistence hunting and fishing became limited to rural Alaskan residents. The Alaska Board of Fisheries created the personal use salmon fisheries in the Yukon Area for non-rural state residents due to changes in the state subsistence law. The regulation directed that fishermen residing within non-rural areas be considered personal use fishermen regardless of where they fished. Correspondingly, fishermen residing in rural areas were considered subsistence fishermen regardless of where they fished. The residents of the greater Fairbanks area were considered non-rural fishermen. In 1987, a personal use fishery was implemented in the Yukon Area that initially affected only the fall chum salmon fishery. Beginning in 1988, personal use regulations were in effect for all salmon species in the Yukon Area. Under the statutes and regulations that were in effect from 1988 until July 1, 1990, Alaska residents domiciled in non-rural areas were prohibited from participating in subsistence fisheries. During that time, non-rural residents harvested salmon under personal use fishing regulations wherever they fished. Personal use salmon harvested in the Lower Yukon Area and upper Yukon River drainage during this period of transition are documented in prior reports (Borba and Hamner 1998).

Effective July 1, 1990, the Alaska Supreme Court struck down the rural residency requirement for subsistence participation (*McDowell vs. State*). The court ruled that the Alaska Constitution prevented the allocation of fish and game to people based on the location of their residence. The result was that every Alaska resident became eligible to subsistence fish. In effect, this decision made the personal use category obsolete in the Yukon Area. Anyone eligible for a personal use permit could also obtain a less restrictive subsistence fishing permit. For this reason, Yukon Area personal use salmon fishing permits were not issued during 1991 and 1992.

During a special session in 1992, the state legislature revised the subsistence law to allow the Joint Boards of Fisheries and Game to divide the state into subsistence and non-subsistence areas. Personal use fishing was authorized inside the non-subsistence areas and the regulations that allowed subsistence fishing inside these areas were repealed. The Fairbanks Nonsubsistence Area, the only non-subsistence area in the Yukon Area was created consisting of the Fairbanks North Star Borough and surrounding areas. The Fairbanks Nonsubsistence Area included the Tanana River drainage above the confluence of the Wood River upstream to the mouth of the Volkmar River on

the north bank of the Tanana River and to the mouth of the Johnson River on the south bank of the Tanana River (Figure 2). During the 1993 fishing season, personal use fishery regulations were implemented in this area. In October 1993, the Alaska Superior Court ruled in the *Kenaitze* case that the non-subsistence area provision of the 1992 subsistence law was unconstitutional because it discriminated between different areas of the state. Although the state was initially granted a stay on the effects of that decision pending appeal to the Supreme Court, the stay was vacated on April 11, 1994. With the stay lifted, the state was required to provide subsistence fishing in non-subsistence areas during the 1994 season. All Alaskan residents were again qualified as subsistence users during the 1994 fishing season and, although available, no personal use permits were issued.

On May 9, 1995, the Alaska Supreme Court reversed the Superior Court's ruling by upholding the constitutionality of the non-subsistence areas. Once again the Joint Boards of Fisheries and Game adopted regulations that reestablished the Fairbanks Nonsubsistence Area. Currently, no subsistence fishing is allowed within non-subsistence areas. This area is managed according to personal use fishing regulations and primarily affects salmon fishermen within Subdistrict 6-C, which is entirely within the boundaries of the Fairbanks Nonsubsistence Area and whitefish and sucker fishermen throughout the area. By regulation, the Subdistrict 6-C personal use salmon fishery has a household permit limit of 10 chinook, 75 summer chum salmon, and 75 fall chum and coho salmon combined. Additionally, the fishery has a harvest limit of 750 chinook, 5,000 summer chum salmon, and 5,200 fall chum and coho salmon combined. These harvest limits have been applied historically to either the personal use or the subsistence fisheries within Subdistrict 6-C, whichever one was being prosecuted. Whitefish and sucker permits go through a review process to determine various stipulations depending on the requested area to be fished, gear type to be used, and amounts to be harvested prior to being issued.

History of Commercial-Related Harvests

Another layer of complexity for conducting the Yukon Area harvest surveys is distinguishing between subsistence and commercial harvests whenever commercial fishermen extract and sell only the roe of the fish, commonly referred to as roe fisheries. Female salmon flesh that remains after the roe has been removed and sold commercially is referred to as a stripped carcass. As a byproduct of the commercial roe fishery, stripped carcasses are available to meet subsistence needs. Subsistence salmon harvests are defined as those that are harvested under subsistence fishing regulations. Salmon taken under commercial fishing regulations that provide for both subsistence and commercial use are assigned to a special category referred to as *commercial-related* harvest. Commercial roe fisheries began in the Upper Yukon Area in 1978, and the first sale of salmon roe in the Lower Yukon Area occurred in 1996. Commercial-related salmon harvests can be combined with the subsistence harvest estimate to provide the total potential subsistence utilization. The commercial-related harvests can also be combined with salmon sold in the round to provide an estimate of the commercial harvest.

In most of the Yukon Area, with the exception of Subdistrict 4-A, the commercial-related harvest is a small proportion of the subsistence utilization. Large local subsistence needs can easily absorb the

commercial-related harvest in most areas. However, during years of large commercial harvests, the number of female summer chum salmon carcasses available from the commercial roe fishery in Subdistrict 4-A, along with the incidental harvest of male chum salmon, has been greater than the documented subsistence utilization levels. The department estimates the number of male and female summer chum salmon harvested during a commercial fishing period from the pounds of roe sold. This method of expansion estimates the numbers of fish harvested by using both the observed pounds of summer chum salmon roe per female and the sex ratio information collected during each commercial period.

From 1978 to 1990, subsistence survey questions in most areas were not structured to identify the commercial-related harvests. During these years it is believed that many of the commercial-related salmon harvests were reported as subsistence harvests. In 1984, the Division of Subsistence conducted the first subsistence surveys directed at addressing the amount of commercial-related harvests in the Subdistrict 4-A villages of Kaltag and Nulato. These surveys attempted to exclude the commercial-related summer chum salmon used for subsistence purposes from the subsistence harvest. As a result, the subsistence summer chum salmon harvest estimates for Kaltag and Nulato in 1984 were well below harvest estimates for previous years. Efforts to identify the commercial-related summer chum salmon harvest from the Subdistrict 4-A subsistence harvest estimates were continued from 1986 to 1989. During these years of transition, it is probable that some portion of the commercial-related harvest continued to be reported as subsistence harvest. It was not until 1990 that survey questions and fishermen's reports resulted in the satisfactory separation of subsistence utilization into subsistence and commercial-related harvests, markedly reducing estimated subsistence harvests.

Prior to 1990, the commercial harvest included the number of fish sold in the round and the number of females taken to produce the sold roe. Since 1990, regulations require the reporting of commercial harvests in Subdistrict 4-A as the estimated number of female salmon taken to produce the sold roe plus the estimated incidental harvest of male salmon. Although not required by regulation, the department estimates the commercial harvest of summer chum salmon in Subdistricts 4-B and 4-C and in the lower Yukon Area in the same manner as in Subdistrict 4-A.

Prior to 1993, subsistence and commercial periods were conducted simultaneously. As a result during commercial fishing periods some salmon were also harvested under subsistence regulations. With few exceptions, since 1993, the subsistence and commercial periods in Subdistrict 4-A, have been separated by time and all fish harvested and not sold in the round during the commercial periods are considered commercial-related. Subsistence and commercial periods were also separated by time in District 1, 2, and 3. In areas where salmon flesh markets prevail, households still harvested a number of fish for their own household's use that appeared to be unaccountable. The Board of Fisheries established a reporting system for all fish "taken but not sold" during commercial fishing periods by requiring documentation of these fish on commercial fish tickets statewide. This regulation remained in effect for the majority of the Yukon Area from 1993 until 1997. The reporting system created confusion as to where fishermen were reporting the harvests and created concern for double counting fish in the final salmon harvest estimates. The Board of Fisheries, with the exception of Subdistrict 6-C, removed this regulation from the Yukon Area. To avoid exceeding the personal use salmon permit harvest limit in Subdistrict 6-C, commercial fishermen report fish "taken but not sold" on fish tickets and not on their household permits.

An additional series of questions to address the usage of commercial-related harvests were added to the Subdistrict 4-A commercial fishermen survey questionnaire during the 1992, 1993, and 1995 surveys. The additional survey questions were initiated to evaluate the methods used to estimate the number of salmon harvested in Subdistrict 4-A. In salmon roe fisheries within Subdistrict 4-A, the department estimated the number of fish harvested based on the pounds of roe produced per female and the sex ratios observed during each commercial fishing period. These estimates were compared to what was reported on commercial fish tickets. The majority of the fishermen surveyed agreed that the department's estimate based on sampling was a better representation of the actual harvest. The additional survey questions have since been discontinued. However, the department continues to estimate the commercial-related harvests of individuals, selected to be surveyed in a given year, who participate in commercial fisheries in Subdistrict 4-A. During the survey the department's estimate is brought to the attention of the fishermen for confirmation. Because the additional survey questions also documented the practice by Subdistrict 4-A fishermen of releasing live male chum salmon directly back into the river during commercial roe fisheries, the department's estimates of commercial-related may be slightly larger than the actual harvest.

In 1994, the Alaska Board of Fisheries adopted regulations that allowed a commercial summer chum salmon fishery in the Anvik River (5 ACC 05.368. Anvik River Chum Salmon Fishery Management Plan). A commercial summer chum salmon roe fishery occurred in the Anvik River from 1994 through 1997. The Anvik River is within Subdistrict 4-A and has been managed as a terminal harvest commercial fishery. The Anvik River commercial summer chum salmon fishery has only involved the sale of roe, which results in additional stripped female carcasses becoming available to subsistence users. Commercial-related harvests in the Anvik River fishery are based only on the estimated number of female salmon taken to produce the roe. The gear types (hand beach/purse seines, manned gillnets, and fish wheels with livebox) utilized in this fishery have special restrictions to allow for the release of male chum salmon.

OBJECTIVES

The objectives for 2000 were to estimate:

1. the subsistence and personal use salmon harvest by species, community, district, subdistrict, or major tributary within the Yukon Area;
2. select demographics which include the number of fishing households and the number of people in the fishing households in the Yukon Area;
3. the primary gear types utilized by the fishermen participating in the Yukon Area subsistence and personal use salmon fisheries;
4. the number of fish provided to communities for subsistence use that originated from the Yukon Area test fishery program;

5. in select Yukon Area communities; the number of dogs, number of households with dogs, number of households that feed fish to dogs, and the number of fish fed to dogs by fishery;
6. the number of other non-salmon, primarily freshwater fish species, utilized by the communities which participate in the Yukon Area subsistence and personal use fisheries.

Additional objectives were to document the number of households in surveyed communities that indicated their subsistence salmon needs were not met and to obtain a description of the quality of subsistence salmon run by species during 2000 season.

METHODS

Personal interviews and returned permits are the primary sources of information used to estimate the number of subsistence and personal use salmon harvested in the Yukon Area. Test fisheries are used throughout the Yukon River drainage to index salmon runs. Salmon harvested in test fisheries are made available to meet local subsistence needs. Salmon provided to subsistence households by these test fisheries are documented by each individual project. Information from surveys, permits, and test fisheries are combined and used to estimate Yukon Area subsistence and personal use harvests. For the purpose of this report, subsistence use includes estimated subsistence harvests plus commercial-related harvests. It should be noted that some Stevens Village residents fish in both permitted and non-permitted areas. Subsistence salmon harvest estimates for Stevens Village are based on survey information that incorporates harvests reported on permits. Stevens Village permit information is removed from the permit total when combining permit harvest information with survey results to avoid double counting the salmon harvested.

Subsistence Surveys

The 2000 survey program was designed to provide an estimate of the salmon harvested by subsistence fishing households residing in surveyed villages. Primary components of the survey program were subsistence harvest calendars mailed out prior to fishing activities, postseason personal interviews, and follow-up telephone or postal surveys.

The household list database is updated each year by using survey information collected from the previous year. Additionally, the survey program uses information collected from various other sources to update the household list. These sources include knowledgeable individuals in each community who are contacted to review household lists, various village census lists, and telephone and utility registers. The 2000 household list was updated by removing 198 households from the previous year's database. The deleted households included households that moved out of a surveyed community and into another surveyed community, households that were combined with other established households within a surveyed community, or households that no longer resided in a

Yukon Area surveyed community. Additionally, 429 new households were added to the 2000 household database based on the previous years' surveys and an extensive review of Alaska Permanent Fund applicants, which caused a dramatic increase in the unknown use category (from 32 in 1999 to 393 households). New households included those families that moved into a surveyed community or household members who had recently established a household of their own within a survey community. Information was also collected from harvest calendars returned during the previous season. The collected information was used to ensure households were placed in the correct stratum prior to selection for next year's survey.

The department conducted two mass mailings by distributing subsistence harvest calendars to 1,250 Lower Yukon and 1,186 Upper Yukon Area households that were identified in the database prior to salmon fishing activities. The Lower Yukon Area calendars contained the months of May through September (Appendix A.1). The Upper Yukon Area calendars contained the months of June through October. Additional calendars were made available to households upon request from department offices in Emmonak and Fairbanks. The calendars provide space for fishermen to record their daily salmon harvest by species. Enclosed with the 2000 calendar was an insert that provided subsistence and personal use harvest results from the previous season and expressed appreciation for the fishermen's participation in the subsistence survey program. The insert also included the previous year's subsistence and personal use salmon preliminary harvest estimates by village (Appendix A.2). Harvest information from calendars returned prior to or during the subsistence survey was used to reduce the errors associated from having to recall harvest numbers from memory and was used as the main source of harvest data when contact was not made with the selected household. Additionally, calendars provide data for maintaining the households use group in the database, which is crucial for households that were not selected for interviews in a given year. In an effort to improve calendar returns during surveys of the villages, posters were sent to village post offices reminding fishermen to have their harvest calendars available for the surveyors. Additionally, announcements informing fishermen of the surveyor's schedule were broadcast over local radio stations prior to the surveyor's arrival in the village.

The database of Yukon Area households located in surveyed communities formed the framework for the stratified random sampling program. Each household in the database was assigned to a subsistence harvest category. These harvest categories consisted of: "Unknown, do not fish, light, medium, or heavy." Households with no previous harvest information available for placing them into a harvest classification were categorized as "unknown." Households with historical harvest information were placed in a harvest category based upon their average annual harvest of salmon from the two recent years in the time period 1995 to 1999. The 1998 information was excluded as a basis for reclassification of households harvest categories because of low returns of salmon and subsequent subsistence restrictions implemented during the fall season. If household harvest information was not available for two recent years, the household use group classification was left unchanged. In the Lower Yukon Area, an average harvest of 1 to 200 salmon was considered "light," a harvest of 201 to 500 salmon was considered "medium," and a harvest greater than 500 salmon was considered "heavy." In the Upper Yukon Area, an average harvest of 1 to 100 salmon was considered "light," a harvest of 101 to 700 salmon was considered "medium," and a harvest greater than 700 salmon was considered "heavy."

A random sample (Cochran 1977) of households was drawn from the stratified population in each community, with strata being defined by the harvest category. In general, strata sample sizes were established based upon the level of harvest: all (100 percent) of the households in the "unknown," "medium" and "heavy" categories; 30 percent of the households in the "light" category; and 10 percent of the households in the "do not fish" harvest category were identified to be sampled during the 2000 survey. Further, if any stratum sample size obtained using these guidelines contained five or fewer households, the sample size was made equal to the stratum size. Since 1996, all households were sampled in survey communities with 40 or fewer households.

Several exceptions to this sampling strategy were adopted in 1991 and have been continued in 2000. Sample sizes were increased for select harvest categories in the villages of Emmonak and Pilot Station because large numbers of test fish were provided to households, which influenced the number of fishing households. Sample sizes were increased in the village of Tanana due to the relatively large subsistence harvests and in Holy Cross due to an unusual chinook salmon harvest estimate in one particular year. In Emmonak, Pilot Station and Tanana, 30 percent of the households in the "do not fish" harvest stratum and 50 percent of the households in the "light" harvest stratum were identified to be sampled. In Holy Cross, 50 percent of the households in the "light" harvest strata were identified to be sampled. These sampling efforts were intended to increase the precision of harvest estimates from these villages.

Prior to conducting surveys, the surveyors received an orientation that included a review of the project's operational plan, survey form instructions, profiles of villages to be surveyed, an overview of the Yukon Area fisheries, and an update on pertinent issues related to the current fishing season. In 2000, both surveyors were new, but they were trained by an experienced surveyor who conducted joint surveys in the first community prior to allowing the new surveyors out on their own. Appendix A.3 is an example of the 2000 subsistence salmon postseason interview form. During personal interviews, both the surveyors and the surveyed individuals contribute to the quality of the estimate. Surveyors have a responsibility to contact all the households to be surveyed and to ensure that questions are asked consistently and understandably, while fostering a cooperative atmosphere. Household members who are interviewed have the responsibility to answer the questions to the best of their ability.

Interviews were designed to determine if the household participated in the 2000 subsistence salmon fishery, the number of salmon harvested by species, the number and species of salmon processed by the household for its own use, how many other households assisted in the salmon harvest, which other households shared the harvest, the number of salmon used that were a byproduct of a commercial fishery (commercial-related), the primary gear type used, the location where the subsistence salmon harvest occurred (district, subdistrict or major tributary), and whether the household's subsistence needs were met. Surveyed households were also asked if they received any salmon from other fishermen or from a test fish project.

The survey questions concentrated on chinook, summer chum, fall chum, and coho salmon, but households were also asked about their harvest of pink salmon and other miscellaneous non-salmon species. Reported harvests of whitefish, northern pike, and sheefish (*Stenodus leucichthys*) are expanded to obtain estimates of total harvests for surveyed communities. The reported harvests of other non-salmon species are not expanded because of the limited quantity of information that is

usually obtained. The survey also included questions regarding the number of people and dogs in the household and the number of chinook, chum and coho salmon put up for dog food. Households were asked if they met their subsistence salmon needs and beginning in 2000 households were asked to describe the quality of the runs by species. Members of households that participated in the interview process were given a monogrammed luggage tag or pen as a gesture of the department's appreciation. The items were featured in the department's colors of blue and gold and printed text identified the program as "Alaska Department of Fish & Game -Yukon River- Subsistence Salmon Survey." Additionally, everyone who returned a properly filled out subsistence survey calendar became eligible for a \$200 lottery.

Although the households are stratified according to household salmon harvests and not household use, an estimate of total salmon use is generated from the various components of the survey questions. Estimated use includes salmon harvested during subsistence activities, fish received from other individuals or test fisheries, and those retained from commercial harvests.

An attempt was made to conduct telephone interviews with all households selected to be surveyed, but that were not personally contacted by surveyors while in the community. Survey questionnaires, with a postage-paid return envelope; were mailed to households that were not contacted by personal or telephone interviews. The collection of personal and telephone interviews as well as returned postal survey responses was assumed to constitute a stratified random sample.

In this survey, stratified random sampling method was employed (Cochran 1977), in which sample households were randomly selected from each of five user groups (i.e., stratum) Unknown, Does Not Fish, Light, Medium and Heavy Harvesters in each community.

Denote that

N_{kj} = number of households in j th ($j = 1 \dots 5$) user group of the k th community

n_{kj} = number of sample households in the j th user group of the k th community

y_{kji} = response of i th sample household ($i = 1 \dots n_{kj}$) in the j th user group of the k th community

Mean response of the j th user group of the k th community (\bar{y}_{kj}) is

$$\bar{y}_{kj} = \frac{\sum_{i=1}^{n_{kj}} y_{kji}}{n_{kj}}$$

and its standard error (SE_{kj}) is

$$SE_{kj} = \sqrt{\frac{s_{kj}^2}{n_{kj}} \left(\frac{N_{kj} - n_{kj}}{N_{kj}} \right)} \text{ where } s_{kj}^2 = \frac{\sum_{i=1}^{n_{kj}} (y_{kji} - \bar{y}_{kj})^2}{n_{kj} - 1}$$

The estimate of total responses of the k th community (\hat{T}_k) is

$$\hat{T}_k = \sum_{j=1}^5 N_{kj} \bar{y}_{kj}$$

and its 95% confidence interval (95%CI_k) is

$$95\%CI_k = 1.96 \cdot \sqrt{\hat{V}(T_k)} \quad \text{where} \quad \hat{V}(T_k) = \sum_{j=1}^5 N_{kj}^2 \left(\frac{N_{kj} - n_{kj}}{N_{kj}} \right) \left(\frac{s_{kj}^2}{n_{kj}} \right)$$

Because the estimates of the responses in each community are independent from each other, the estimate of survey wide total (\hat{T}) is

$$\hat{T} = \sum_{k=1}^5 \hat{T}_k$$

and its 95% confidence interval (95%CI) is

$$95\%CI = 1.96 \cdot \sqrt{\hat{V}(T)} \quad \text{where} \quad \hat{V}(T) = \sum_{k=1}^5 \hat{V}(T_k)$$

Subsistence Permits

In 2000, households were required to obtain subsistence fishing permits in select areas of the Yukon River drainage prior to conducting fishing activities. Subsistence fishing permits were required in portions of District 5 of the Yukon River, in Subdistricts 6-A and 6-B of the Tanana River, and in the upper Tanana River drainage. Since 1990, permit applications for the current season have been mailed to all permittees who returned their permit from the previous season. Subsistence permit applications sent to rural communities included a letter explaining how to apply by mail (Appendix A.7). The letter also provided a schedule of when a department representative would be present in select villages if the applicant preferred to be issued a fishing permit in person. Permits were issued during these preseason permit issuing trips in the villages of Nenana, Manley, Minto, Central, Circle, Delta Junction, Tok, Dot Lake, Tanacross, Northway, and Eagle. Permits were also issued in person or by mail throughout the season from department offices in Fairbanks, Delta Junction, and Tok. Other types of subsistence household fishing permits available in the Tanana River drainage included whitefish and sucker permits upstream of the confluence of Wood River, as well as northern pike fishing permits for portions of the Tolovana River drainage.

Most household fishing permits issued in 2000 had an expiration date of 15 October. Several permits had later expiration dates because of the remoteness of certain fishing areas or later fishing patterns. All Tolovana River drainage northern pike fishing permits, Kantishna River drainage

salmon fishing permits, and the majority of subsistence whitefish and sucker permits in the upper Tanana River drainage expired on 31 December 2000.

Permit holders were required to keep a record of their daily fish harvest on the permit and to return the permit to the department within 10 days of the expiration date. Households with outstanding expired permits who did not report their required harvest information were sent two reminder letters at about two week intervals (Appendices A.8 and A.9). Telephone contact with households that did not respond to these reminder letters was attempted as a final measure to obtain the harvest information.

Holders of subsistence salmon permits in the upper portion of Subdistrict 6-B were required to report their harvests weekly for inseason management purposes. Fishermen who fished in this area and complied with the verbal reporting requirement at least once during the fishing season, but who failed to return their permit at the end of the season, were also sent reminder letters. The letters expressed the department's appreciation for the verbal inseason reports and asked them to confirm their season's total harvest (Appendix A.8). In the event the original permit was lost, the reminder letters served as a substitute means for reporting total harvests by species, but the daily harvest information was unattainable. Harvests were tabulated postseason for all permit holders who returned their permit, returned a completed reminder letter, or verbally reported their harvest information.

Test Fisheries

Test fishery projects are operated annually throughout the Yukon River drainage by various agencies or organizations. Salmon harvested in Yukon Area test fisheries are frequently provided to local subsistence households to assist them in meeting their needs. It is assumed that salmon provided from test fisheries replace those that would have been obtained through more traditional subsistence fishing activities. Salmon harvests provided to subsistence households from test fisheries are included in village subsistence harvest estimates.

Through the years, test fishery projects have utilized different methods to document the test fish harvests provided to local households. In 2000, test gillnet fisheries were operated by various agencies and organizations in the Yukon River delta, including Mountain Village, Pilot Station, Marshall, Russian Mission and Kaltag. Test fish wheels were also operated in several locations within the upper portion of the drainage (Figure 1). One fish wheel was operated on the south bank of the Yukon River near the village of Tanana. Two fish wheels, one on each bank of the Yukon River, were operated at the "Rampart Rapids," and a third fish wheel was operated near Rampart as part of a mark-recapture project. Six test fish wheels were operated within the Tanana River drainage as part of a mark-recapture project to estimate returns of fall chum salmon within the Tanana River, above the confluence of the Kantishna River, and within the Kantishna River. One tagging fish wheel was located on the right bank of the Tanana River above the confluence with the Kantishna River, and the other was located just within the Kantishna River. The recovery wheels included one near the village of Nenana on the Tanana River and two located within the Toklat

River, a tributary of the Kantishna River, and a first year operation of a contracted fish wheel within the upper Kantishna River drainage. The test fish wheels within the Yukon River drainage operate with the use of live boxes.

Personal Use Permits

Personal use salmon fishing permits were required in Subdistrict 6-C during the 2000 fishing season. Personal use fishing permits for whitefish and suckers were required within the entire Fairbanks Nonsubsistence Area (Figure 2). Permits were issued either through the mail or to individuals who applied for a permit in person at department offices in Fairbanks or Delta Junction. Since 1996, personal use permit applications for the current season have been mailed to all households that returned their permits from the previous season (Appendix A.6). Applications mailed to qualified households included a letter explaining how to apply for a personal use permit by mail or in person. Household permits for the taking of personal use salmon had an expiration date of 15 October 2000. Personal use whitefish and sucker permits in the Fairbanks Nonsubsistence Area are issued for time periods from January through December of the current year to accommodate harvests of these species during the winter months. Personal use salmon fishermen within Subdistrict 6-C are required to report their harvest weekly for inseason management purposes. Requirements for recording daily fish harvests on the permit and procedures for the retrieval of permit harvest information by the department are identical to those performed for subsistence permits.

RESULTS

A total of 36,479 chinook, 78,102 summer chum, 19,396 fall chum and 14,939 coho salmon were estimated to have been harvested, and 1,410 households were estimated to have participated in the Yukon Area subsistence and personal use fisheries in 2000 (Table 1). The Yukon Area includes the Alaskan portion of the Yukon River drainage and the communities within the Coastal District. These harvest estimates include salmon given away by Yukon Area test fish projects. The 2000 permit harvest information is based on permits returned as of 23 May 2001. Appendices B.1 through B.4 document the annual subsistence salmon harvest from 1989 to 2000 by species and by community of residence. Additionally, Appendix B.5 documents the historical personal use harvest from permits issued since 1987 to the present, by species and by permit area.

Subsistence Surveys

The stratified random sampling design utilized by the survey program identified 1,365 households to be surveyed in 2000. Surveyors attempted to interview a member of each household identified in the sample, preferably the primary harvester. A total of 967 households, or approximately 71 percent of the households identified to be sampled, were contacted in 2000 (Table 2). The contact number does not include nine households who declined to participate in the personal interview. An estimate of 10,588 people was drawn from the 2000 survey database which contained 2,820 households who resided in the 34 Yukon Area communities included in the survey area (Table 3). Surveyors from the department's Division of Commercial Fisheries traveled to villages between 24 September and 1 November 2000. A total of 177 completed calendars, or 8 percent of the estimated 2,436 calendars distributed, were either collected by surveyors during the interviews or were received in the mail by the department. The department congratulates Larry Yupanik of Emmonak, who won the \$200 lottery for returning a completed 2000 harvest calendar. Follow-up survey questionnaires mailed to households that surveyors were unable to contact by other means were often returned incomplete, resulting in partial surveys. Attempts to contact households by telephone throughout the fall and winter had limited success due primarily to the small number of individuals with connected telephone services during that time period. Because some individuals provided partial information during the survey, the number of households contacted for a given question varies. In reporting survey results, the greatest number of contacted households is provided for each topic.

In the survey area, an estimated 1,243 households participated in the subsistence salmon fishery, approximately 44 percent of the estimated total number of households (Table 4). Primary gear types used by households in surveyed villages that reported fishing included 45 percent set gillnet, 49 percent drift gillnet, four percent fish wheel and one percent hook and line (Table 5).

The estimated number of subsistence salmon harvested by surveyed households was 29,282 chinook, 71,429 summer chum, 14,830 fall chum, and 6,680 coho salmon (Table 6 and Appendices C.1–C.4). Tables 7 through 10 identify subsistence salmon harvest estimates by species, by community and by fishing area. The amount of travel to multiple areas to fish seems to be lower than normal, possibly due to hardships created by the lack of commercial fishing. Commercial fishing districts, subdistricts and major tributaries of the Yukon River represent fishing areas.

The 2000 survey included questions concerning the harvest of pink salmon and select non-salmon species. The pink salmon harvest was estimated to be 1,593 fish. Approximately 63 percent of the pink salmon harvested were by communities within the Coastal District (Table 11). Pink salmon exhibit a low (odd year) and high (even year) abundance two-year cycle. The 2000 pink salmon run to the Yukon Area was supposed to be a high abundance year in the cycle. However, they appear to suffer from the same declines as other western Alaska salmon stocks, and abundance appeared to be more typical of a low abundance year. Whitefish are the most utilized miscellaneous non-salmon species harvested throughout the drainage. Whitefish harvests are distinguished between large whitefish (4 pounds or greater) and small whitefish (less than 4 pounds). The 2000 Yukon Area

subsistence harvest includes expanded estimates of 19,353 large whitefish, 25,939 small whitefish, 9,174 northern pike, and 6,581 sheefish (Table 11).

The estimated number of salmon used for subsistence purposes within Yukon Area surveyed villages in 2000 was 33,567 chinook, 81,881 summer chum, 13,795 fall chum, and 8,013 coho salmon (Table 12 and Appendices C.5-C.8). This estimate includes salmon used by fishing and non-fishing households in the surveyed villages. Survey results indicate an estimated total of 159 chinook and 701 summer chum salmon were retained from commercial harvests and used for subsistence purposes (Table 13). In most years since 1987, Subdistrict 4-A has had a relatively high contribution of salmon retained from commercial harvests made available for subsistence use. However, due to the lack of a commercial fishery in Subdistrict 4-A in 2000, no salmon were available for subsistence use from the roe fishery. Additionally, no fall season commercial fishery was conducted within the Yukon Area, and therefore no fall chum and coho salmon were retained from this source.

The survey estimated 1,557 households, or approximately 55 percent of the total households, owned dogs (Table 14). Within the surveyed villages it was estimated that there were 4,447 dogs. Among the households that owned dogs, 140 were estimated to feed whole salmon to dogs. An estimated 7,626 summer chum, 7,739 fall chum, and 2,220 coho salmon were retained for dog food from subsistence salmon harvests in the surveyed communities (Table 15). The responses to the question concerning the harvesting of chinook or "jack" salmon for dog food is reported as an unexpanded number recognizing that it is a sensitive subject which may effect individual's reporting of the practice. Seven households from the surveyed communities of Anvik, Galena, Fort Yukon, Ruby, Shageluk and St. Mary's responded that they put up a total of 364 chinook salmon for dog food in 2000.

Approximately 64 percent of 932 surveyed households reported they did not meet their subsistence salmon needs in 2000 (Table 16). The surveyed households were asked to provide an assessment of the quality of the individual salmon runs to the Yukon River in 2000. In previous years the question regarding fishing success was broader, and answers appeared to reflect recent harvest activities, typically the fall season fishery. In 2000, the question was altered by separating the fishermen's responses by species to provide an assessment of both summer and fall chum season success. Table 16 provides a summary of the ratings by community and by fishing district. In 2000 on average, 77 percent of the surveyed households rated the salmon runs as very poor.

During the summer season, ratings of the chinook and summer chum salmon runs as "very poor" averaged 63 percent in the Lower Yukon Area and 93 percent in the Upper Yukon Area. Several factors possibly contribute to the disparity in ratings between the Upper and the Lower Yukon Area subsistence harvests. Drift gillnets are a legal salmon gear type used in the Lower Yukon Area and a portion of the Upper Yukon Area. Typically, drift gillnets are more efficient than set gillnets for harvesting salmon in both subsistence and commercial fisheries. Lower Yukon fishermen characteristically harvest on the front end of the run. In 2000 the subsistence season began as usual and was open seven days per week prior to opening the commercial season. The first commercial period in the lower Yukon River opened eleven days later than average, to allow for additional time to assess a potentially below average run. This delay allowed fishermen additional time to concentrate on subsistence needs. The Upper Yukon Area was subject to greater subsistence salmon

fishing restrictions as a result of the assessment, which reduced fishing opportunity when stocks were in the area. Management decisions are often made prior to assurance of adequate run size because of the vastness of the drainage. As the salmon continue migrating up river the run size assessments become more accurate, but meanwhile the salmon have passed through the lower Yukon fisheries. The combination of a poor salmon return, the use of efficient drift gillnets, a limited commercial harvest, and a subsistence fishery targeting an early run with low abundance in the Lower Yukon Area may have contributed significantly to a reduction in the availability of salmon in the upper Yukon River drainage (upstream of the Tanana River confluence) for meeting subsistence and escapement needs. Additionally, debris loads were extremely high in 2000 after several years of low water levels. A moderately high spring run off delivered accumulated debris down stream during the chinook salmon season which affected all areas to some degree.

In 2000 the fall season return was rated uniformly poorer than the summer season. Overall, the fall chum and coho salmon runs averaged an 81 percent rating of "very poor" as both the Upper and Lower Yukon Areas were under severe fishery restrictions throughout the fall season. Significantly more fall chum salmon are taken for subsistence in the Upper Yukon Area. Some of the major users in the Upper Yukon Area were able to take advantage of the coho salmon directed fisheries to meet a portion of their needs.

Subsistence Permits

A total of 357 subsistence household permits were issued in 2000 (Table 17). Thirty-seven households obtained two permits to fish in two different permit areas. Separate permits are required for the taking of salmon on the Yukon or Tanana Rivers and for the subsistence harvest of northern pike in the Tolovana River drainage. Most of the two-permit fishing households were individuals from the village of Minto who held separate household permits for both salmon and Tolovana River drainage northern pike. Prior to the salmon fishing season, department representatives traveled to 11 interior villages and issued 166 subsistence permits. The remainder of the permits were issued either by mail or in person from department offices in Fairbanks, Delta Junction, and Tok.

As of 23 May 2001, a total of 338 responses for individual permits (95 percent) were received providing subsistence harvest information. Households reported their subsistence harvest by either returning the expired permit, responding to harvest information requests in the reminder letters, or verbally by telephone or in person. Including the Stevens Village subsistence permit harvests, a total of 4,396 chinook, 1,668 summer chum, 351 fall chum, and 5,182 coho salmon were reported by subsistence permit holders in 2000 (Table 17). These harvest totals may be adjusted in future reports if the department receives information from the remaining 19 permits. Table 18 contains permit harvest information, organized by the fishery, permittee's community of residence, and drainage. A total of 154 household returned permit information indicating that they had participated in the subsistence fishery. Excluding Stevens Village households that fished in the permit required area, fishermen indicated operating the following primary gear types to participate in subsistence fisheries: 120 set gillnets (79%), 27 fish wheels (18%), and four other gear types or three percent

(Table 1, other gear types not listed). Historic subsistence permit harvest information for salmon is summarized in Appendices B.6 and B.7.

Based on information provided from subsistence permits, 238 households reported owning a total of 1,895 dogs. Of households with dogs, 139 households indicated they fed whole salmon to the dogs. In 2000, subsistence permitted fishermen reported harvesting 3,399 salmon for the primary purpose of feeding dogs (Table 19). Fishermen are not required to report salmon put up for dogs by species, and in many cases fishermen do not even report the number of salmon put up for dogs on the permits. Typically, chum salmon are used for dog food. However coho salmon made up the majority of fish fed to dogs during the 2000 season due to the fishery restrictions imposed for the conservation of chum salmon. Coho salmon retention was allowed by the operation of fish wheels manned with live-chutes. A minimum estimate of the number of chinook salmon put up for dog food can be inferred by comparing the daily number of salmon listed as put up for dogs and the daily harvests recorded by species. An estimate of approximately 116 chinook salmon were put up for dog food in 2000 by nine households.

Test Fisheries

A total of 2,872 chinook, 4,975 summer chum, 4,249 fall chum and 4,797 coho salmon were provided to Yukon Area subsistence households from test fish projects in 2000 (Table 20). Residents in the communities of Emmonak, Kotlik, Kaltag, Marshall, Mountain Village, Pilot Station and Russian Mission were the primary recipients of the test fish. While most test fish projects documented these fish distributions, operators of test fish wheels located near the villages of Tanana, Rampart and Nenana reported salmon harvested from the projects as their own household harvest. Test fish given away to Yukon Area subsistence households that were not accounted for by either surveys or permit methods totaled 2,852 chinook, 4,975 summer chum, 4,214 fall chum, and 3,077 coho salmon (Table 20). The Toklat River test fish wheels released all fish caught. Historical salmon harvests provided by Yukon Area test fish projects to local communities to assist in meeting subsistence needs from 1992 to 2000 are summarized in Appendix B.8.

Personal Use Permits

As of 23 May 2001, a total of 71 responses for individual permits (97 percent) were received providing personal use harvest information for the 2000 fishing season (Table 17). Households reported their personal use harvest by either returning the expired permit or reminder letters, or by responding verbally. A total harvest of 75 chinook, 30 summer chum, and one fall chum salmon were reported by personal use permit holders in 2000. The primary gear types utilized by the 16 households that indicated they fished in the personal use fishery include 15 gillnets (94%) and one miscellaneous gear type (Table 1). Personal use permittees were not asked dog-related questions.

Fish harvested under personal use regulations cannot be fed to dogs. Historical harvest information for the personal use salmon fishery is summarized in Appendix B.5.

DISCUSSION

The 2000 Yukon Area subsistence harvest of chinook salmon was 28 percent below the recent five-year average from 1995 to 1999 (Figure 3). The 2000 summer chum salmon harvest was 25 percent below the most recent five-year average (Figure 4). The 2000 subsistence harvest of fall chum salmon was 81 percent below the recent five-year average (Figure 5). However, the recent five-year average includes harvest from 1998, a year in which regulatory restrictions were implemented that reduced fishing opportunities during the fall season subsistence fishery. In years when the fall season fishery is restricted to conserve fall chum salmon, the coho salmon harvests are also affected. Coho salmon have an overlapping but slightly later run timing than fall chum salmon. The 2000 coho salmon harvest was 41 percent below the recent five-year average (Figure 6). Harvests of coho salmon may have been bolstered by the live-chute fish wheel operations allowing the retention of all fish species except chum salmon during a time period when coho salmon were abundant. Additionally during this time period, set gillnets were restricted to 4 inch or less stretch mesh to provide for the harvest of non-salmon species. However, Fish and Wildlife Protection observed abuse of the restriction where the gear was being used to target salmon. With the predominance of coho compared to fall chum salmon it is likely that chum salmon harvests were most likely under reported.

Pink salmon harvest information has been collected in surveyed communities in the Yukon Area since 1993 (Appendix B.9). Pink salmon are abundant only in the Lower Yukon Area, but they are not typically sought after, and harvests remain low.

Subsistence Surveys

The sampling design and the associated questionnaire have changed periodically throughout the history of the program (Brannian and Gnath 1988; Holder and Hamner 1990; Holder and Hamner 1991; Bromaghin and Hamner 1993). Since 1988, survey methods and corresponding harvest estimates have been relatively comparable. Prior to 1988, commercial-related harvests retained for subsistence purposes were included in subsistence harvests estimates. Additionally, prior to 1979, surveys were conducted before completion of the fishing season, and therefore they only partially documented the harvest of the later running fall chum and coho salmon.

A few communities within the Yukon Area, such as Arctic Village and Wiseman, are located in various tributary headwaters of Yukon River drainage and are not included in the survey program. These communities are located outside of the home range of most species of salmon and rely more

often on freshwater non-salmon species for the majority of their subsistence fish requirements. The community of Chevak, located within the Coastal District, is known to harvest both herring and salmon stocks. Many of Chevak's fishing households are believed to participate in the Hopper Bay fishery. This community may need to be included in future surveys. Portions of the coastal community's salmon harvests are from Yukon River salmon stocks. Currently the extent of Chevak's harvest of Yukon River bound salmon is unknown.

Harvests also occur by households that do not reside within the Yukon Area but participate in the subsistence and or commercial fisheries and transport their salmon harvests out of the area. This harvest is currently not accounted for by the survey, however it is thought to be minimal during the 2000 season because the commercial fishery was extremely limited. Additionally, some Yukon Area households are excluded from either the survey or permit method of data collection. These households reside in areas monitored by permits, but they typically travel to and fish in non-permit areas covered by the subsistence survey program. Because of these factors, it must be recognized that neither survey nor permit methods account for all subsistence harvests taken in the Yukon Area. In recent years attempts have been made to distribute subsistence survey calendars to these households when identified, but success in retrieving the information has been limited. It is recommended that a catchall community group be established to include these households along with all commercial fishermen who do not reside within the surveyed communities of the Yukon Area. At a minimum, use groups for chinook salmon should be established for these households so they can be expanded along with the rest of the harvesters.

During post-season interviews, surveyors also attempt to contact "unknown" use households in order to classify them for inclusion in the database. The "unknown" use group often contains transient individuals who leave their community during the summer months and generally never participate in the fishery. Methods for updating and maintaining an accurate sampling frame must continually be explored. Along with maintaining the sampling frame by identifying households, contact rates of the selected households are also crucial. To maintain high contact rates, several techniques have been implemented in recent years, including spending more time in the villages and increasing contact efforts through use of telephone and postal systems. Experience has shown that spending more time in the villages is the best practical method for increasing the number of contacts. Telephone contacts are constrained due to the limited availability of telephones in the villages and the reluctance of people to return messages even when they can call collect. Interview forms may be sent to households that cannot be personally interviewed or contacted by telephone, but this method usually has a low response rate, and forms are often returned incomplete.

After conducting surveys in 2000, it was observed that low contact rates and small sample sizes had become problems possibly due to two factors. First to consider are the affects of recent changes in the fishery (poor returns for the last two years) such that the household fishermen are being dispersed in attempts to find other ways to make ends meet, therefore making them difficult to contact for conducting surveys. Secondly, a concern that the "unknown" use group is most often categorized into the "Do not Harvest" or the "Light Harvester" groups, which have very different levels of sample selection. The combination of factors has created low contact rates within the "Do not Harvest" group and therefore the lowest overall sample size for the last nine years of the program. Note that the "high" and "medium" harvesters have remained relatively stable over the years with declines in households being more prevalent. Reevaluation of the sample sizes is

recommended and increases in some use groups may be necessary to compensate for the inability to contact households, particularly while the fishery remains at all time lows.

Species identification of the harvest is also a concern for the surveyors because local names for species vary throughout the drainage. For example, fishermen in portions of the Upper Yukon Area use the term "chinook" to refer to coho salmon and "king" to refer to chinook salmon. The most effective technique found to reduce misidentification of a fisherman's harvest is for surveyors to be familiar with the local, common names of the fish species.

Information on gear types has been collected throughout the history of the surveys; however, only since 1992 have the categories remained stable enough to allow a comparison. Based on the reported primary gear types used to harvest salmon in 2000, there is an increasing trend of utilizing drift gillnets to subsistence fish in District 4, which suggests a change in fishing pattern is occurring. In District 4, the shift from set gillnets and fish wheels to drift gillnets to harvest salmon for subsistence has been rising steadily from 42 to 61 percent over the past four years (1997 to 2000). The shift in gear types in District 4 is primarily attributed to the following reasons: 1) expansion of the drift gillnet area for the subsistence taking of chinook and fall chum salmon which was initiated by regulation in 1997; and 2) lack of a commercial fishery in this area since 1998 resulting in decreased deployment of the stationary gear types normally operated by commercial fishermen.

Fishermen who participate in the subsistence surveys are requested to estimate the number of commercial-related carcasses, including both stripped females and whole males, produced as a by-product of roe fisheries. In areas where flesh markets are predominant, whole salmon may be taken home from commercial fishing periods to supplement subsistence needs and are considered "taken but not sold." Salmon from these sources are estimated and referred to as "retained from commercial" in this report. In years with commercial fishing activities for summer chum salmon, the majority of the harvest is taken in District 4. The six-year average (1992 to 1997) commercial-related harvest reported by surveyed communities is approximately 134,000 summer chum salmon, of which 84 percent is generated in District 4. This does not include 1998 through 2000, in which commercial fishing for summer chum salmon was seriously curtailed or non-existent in the area. The reductions in commercial fishing opportunity have severely reduced the amount of both summer and fall chum salmon available for subsistence use (Table 13).

Since 1992, subsistence surveys have attempted to document the portion of the subsistence salmon harvest that is used by a household or given away to another household in efforts to avoid double counting fish shared between households. Beginning in 1993, households were asked if they shared their salmon catch with another household. Understandably, naming the sources of shared harvests is difficult, but the responses to these questions provide the department with some estimate of the amount shared between households. Sharing salmon harvested is a very common practice in rural Yukon Area communities but is difficult to quantify (Appendix C.9). The information gathered from these questions also assists the department in ensuring that each fishing household is placed in the proper harvest stratum, which is based on the amount of salmon caught and not on the amount used. In recent years, poor salmon returns and lack of commercial harvests have significantly reduced the availability of salmon given away by local fishermen within their communities and presumably within the Yukon Area as a whole.

The difficulty in retrieving subsistence salmon calendars is partially due to the random selection of households to be interviewed in a given year. Surveyors do not attempt to make contact with all of the households in the larger communities. Although the calendars can be returned by postage-paid mail, individuals may not use them or often leave them at fish camp. A partially completed historical database containing the calendar information (from both surveyed and non-surveyed households) has yet to be evaluated. Thus far, it appears that the fishing households who have filled out calendars in the past are more likely to use this method annually. To increase response by return of calendars, effort would need to be directed at encouraging other fishermen to use the calendars on a regular basis. With increased use of calendars, the error factor inherent in an individual having to estimate harvest from memory could be reduced. The same would be true for fishing permitholders who filled out permits properly.

Calendars and permits provide harvest information by species and by day that can be plotted over time and used to describe the fishing patterns of the Yukon Area communities. Additionally, relative fishing success may be reviewed when harvests are plotted against the entry pattern of the run, with appropriate adjustments made for travel time, as the salmon migrate up river past the various communities. Subsistence harvest patterns by district are provided in Appendix C.10 for chinook salmon and in Appendix C.11 for summer chum salmon. Opportunities for harvesting fall chum and coho salmon during the 2000 fall season were limited because the fishery underwent restrictions and closures.

The program also monitors the annual number of dogs in the Yukon Area. Fluctuations in dog populations and the corresponding number of salmon necessary for dog food may contribute to increasing or decreasing trends in salmon harvests. Appendix B.10 summarizes information collected by the program since 1990. Before 1992, only surveyed subsistence fishing households were asked dog-related information. Beginning in 1992, all subsistence surveyed and permit households, whether they fished or not, were asked how many dogs they owned and the number of whole salmon fed to their dogs. Dog-related questions are not asked of personal use fishing households since personal use salmon cannot legally be fed to dogs. Subdistrict 6-C operated under subsistence fishing regulations in 1990, 1991 and 1994. In all other years since 1990, Subdistrict 6-C operated under personal use regulations. District 6 subtotals include Subdistrict 6-C permits, which in some years were issued under subsistence regulations and other years under personal use regulations. Therefore, comparing District 6 dog information between years is more difficult. The information on fish fed to dogs should be considered a minimum number, particularly for the permit areas, as many permit holders are neglecting to report the number of fish put up for dog food. It is recommended that a separate expansion report be designed to provide more realistic numbers of fish fed to dogs by permitholders.

Taking into account the fluctuations between subsistence and personal use fisheries, the number of dogs in the Yukon Area appears to have remained relatively stable, except for 1994 and 1998 when a slight decrease in the number of dogs was documented. Comments collected during subsistence surveys indicated that the numbers of dogs kept were reduced following the poor salmon returns in 1993 and 1997. It is likely that a noticeable drop would follow the 2000 season as fishermen end up having to reduce the size of the kennels after experiencing another season of disastrous salmon runs.

The concern for the lack of dog food in the Yukon Area spread around the country and donations began to arrive and thereby reducing the hardship.

In an attempt to explore the various factors that affect fishing opportunity along the Yukon River drainage, the department began inquiring in 1992 whether subsistence salmon needs were being met. Responses to these questions reveal that even in years of relatively good salmon returns, based on escapement, approximately 20 to 30 percent of the households will state their needs were not met. However, this line of questioning included all surveyed households regardless of whether they actively fished that season or not. In years of extremely poor returns, as expected, the responses of those households who had not met their needs increased substantially to as high as 64 percent in 2000 (Table 16 and Appendix B.11).

Test Fisheries

Each Yukon Area test fishing project has different methods for documenting subsistence harvests. To avoid double counting of salmon, care must be taken when documenting test fish given away to supplement subsistence harvests. The department attempts to coordinate with project operators the most appropriate method to collect information regarding test fish disposition. The method used for projects that provide fish to a nearby community within the surveyed area is to have project operators document the number of salmon given away as part of their daily routine. Complications arise within areas where the contracted operator is also supplying his own needs or needs of others, with an additional challenge presented in those areas that also require permits. Surveyors are instructed as to which communities were provided fish from nearby test fish projects each season. Surveyed households are asked how many fish they received from such projects. When analyzing the test fishery harvests, considerations must be made from two sources: the harvest information provided from the agency/organization operated project and the number of fish received from a project by a surveyed household.

Subsistence and Personal Use Permits

Distribution of subsistence and personal use permits has been augmented by spring permit issuing trips conducted annually by department personnel primarily in rural areas, and the availability of permits through the mail or at department offices in Fairbanks, Tok and Delta Junction. In order to improve the weekly harvest reports required from subsistence fishermen in a portion of Subdistrict 6-B and from personal use fishermen in Subdistrict 6-C, the department has applied additional effort towards initiating contact with fishermen known to operate in the area. The weekly harvest reports in these areas are necessary for inseason management of the Tanana River terminal fishery.

Other Fishery Related Issues

The variability of water levels from year to year and within the season can greatly affect harvests. During high water events, debris moving downstream often results in decreased fishing opportunities or reduced gear efficiency and may increase the occurrence of lost or destroyed gear. However, it has been observed that high levels of harvest can occur during high water events in fishing sites that remain relatively drift free, possibly because the velocity of water forces the fish to the banks. During extreme water levels, both high and low, the loss of fishing sites becomes an important factor in the available opportunity to harvest salmon. The department monitors water levels in select locations by comparing the current year's water level with historical water levels (Appendix C.12). The Salcha River, a tributary of the Tanana River, is typically affected by spring run off and rainstorm events. In 2000, water levels were above average during the spring run off and a major rain event occurred in mid August, cresting on 17 August, after which water levels remained near the maximum for the remainder of the season. Water levels on the Tanana River are largely a function of spring run off and glacial melt within the drainage, along with the contribution from rainstorm events in the tributaries. In 2000, Tanana River water levels were near average most of the season, but remained above average after the rains began in mid-August. Water levels in the mainstem Yukon River in both Eagle and Galena were above average and became record highs for the season after mid-August. High precipitation within the Canadian headwaters throughout the 2000 season caused high water levels at Eagle and the upper Yukon River drainage.

Although the subsistence survey program is designed to estimate the number of salmon harvested, it is also the primary source of information on Yukon Area subsistence harvests of non-salmon species. Harvest numbers for selected non-salmon species have been collected from surveyed areas consistently since 1993. Harvest information is collected on the following species: whitefish, northern pike, sheefish, suckers, burbot (*Lota lota*), arctic lamprey (*Lamptera japonica*), "tomcod" (saffron cod) (*Eleginus gracilis*), arctic grayling (*Thymallus arcticus*), char (*Salvelinus* spp.), and blackfish (*Dallia pectoralis*). Selected non-salmon harvest information has also been consistently collected from permit areas since 1988, but the information is not presented in this report beyond 1993 in order to correspond with the historical survey data presented in Appendix B.12. In 1995, the survey began attempting to distinguish between large and small whitefish. During 2000, the subsistence and personal use harvests of whitefish, pike and sheefish were 39 percent below the 1995 to 1999 average. This decline may be partially caused by a true decrease in incidental harvest of these non-salmon species during the course of normal fishing activities, or it may be an effect of the increased pressure placed on these species during times of salmon shortages. Currently there is not enough data on population sizes of non-salmon species to tell what the affects of altering the salmon fishery would pose.

Although harvests of non-salmon species from subsistence and personal use fisheries within the Yukon Area are included in this report, the estimates may be imprecise as the stratification system is based on historical salmon harvests. The correlation between the level of salmon harvest and the level of non-salmon harvest has not been determined. Stratification systems and sampling designs that might result in improved estimates for non-salmon species would need to be identified and

developed. Several additional concerns, documented in previous reports, should be considered before utilizing the non-salmon harvest information (Borba and Hamner 1998).

Fishery Restrictions and Closures

In 2000, the Yukon River drainage experienced chinook, summer and fall chum salmon returns that were extremely weak in abundance. The poor runs had disastrous impacts on the subsistence, personal use and commercial fisheries within the Yukon River drainage. During the summer season, the entire commercial fishery was closed after indicators suggested an extremely weak return. Three six-hour large mesh commercial openings occurred in the lower Yukon River prior to the closures and resulted in record low harvests of 8,518 chinook and 6,624 summer chum salmon sold in the round. Additionally, personal use and sport fisheries within the Yukon River drainage for chinook and summer chum salmon were closed on 14 July and 18 July respectively.

As run assessments became available it was apparent that the salmon runs would not support normal subsistence fisheries and meet escapement needs. For the first time in history, the summer season subsistence fishery was restricted. These restrictions were continued into the fall season. The disastrous run of fall chum salmon eventually closed the subsistence fishery to provide for escapement. As of July 19, 2000, the subsistence restrictions were as follows: Districts 1, 2, and 3 were reduced to one 12-hour period per week; District 4 was reduced to two 24-hour periods per week; District 5 was reduced to one 24-hour and two 12-hour periods per week; Subdistricts 6-A and 6-B on the Tanana River and the Upper Tanana River drainage were reduced to one 24-hour period per week; and the "Old Minto Area" was reduced to one 40-hour period per week. Based on the extreme weakness in the summer season salmon returns, the fall chum salmon run was reevaluated and anticipated to be closer to the lower end of the preseason projection (530,000 fish). Based on the Yukon River drainage fall chum salmon management plan the restrictions remained in place into the fall fishing season while the fall chum salmon run was being assessed.

Inseason assessments from the upper Yukon river projects included the first and only preliminary passage estimate generated from the Rapids/Rampart mark-recapture project of 47,000 fall chum salmon as of August 19 and an end of the season estimate of approximately 177,000 fall chum salmon. This estimate was consistent with the lower river run assessment. As the season progressed, additional escapement and fishery monitoring projects within the upper Yukon River drainage began to provide valuable inseason information on run strength and timing of fall chum salmon. These upriver indicators included the village of Tanana test fish wheel, Chandalar and Sheenjek River sonar projects, as well as the Tanana and Kantishna River mark-recapture projects.

The run continued to appear weak as the season progressed, leading to further restrictions to the subsistence fishery on August 12 as follows: Districts 1, 2, and 3 were reduced to one 6-hour period per week; Districts 4 and 5 were reduced to one 24-hour period per week. On the Tanana

River, Subdistricts 6-A and 6-B were reduced to one 18-hour period per week, the "Old Minto Area" was reduced to one 24-hour period per week, while the Upper Tanana River drainage was placed on 36 hours per week. These restrictions reflected an 80 percent reduction of fishing opportunity in all areas, except for the Lower Yukon Area.

Run size projections in late August did not improve as the run progressed. Despite the lack of commercial fishing, closures of both sport and personal use fisheries, and implementation of subsistence restrictions, it was determined that the 2000 fall chum salmon run would not support subsistence harvests and meet escapement requirements. Subsistence salmon fishing within the Yukon River drainage was closed on August 23 to provide for fall chum salmon spawning escapement needs.

The subsistence fishery for non-salmon species remained open seven days per week throughout the drainage with use of a variety of gear types. However, gillnets were limited to 4 inches or less in stretch mesh and fish wheels were excluded. During the peak of the coho salmon return in District 4 and Subdistricts 5-A, 6-A and 6-B, subsistence fishing opportunity was allowed providing means existed to minimize the harvest of fall chum salmon. In these areas, subsistence fishing was allowed only by operating fish wheels equipped with "live chutes" to harvest coho salmon. Sections of the Yukon River drainage reopened to normal subsistence schedules in the following order based on run timing after the majority of fall chum salmon had migrated through each area to spawning grounds: the Lower Yukon Area reopened September 16; District 4 reopened September 27; Subdistricts 5-B, 5-C and 5-D reopened October 1; Subdistricts 5-A, 6-A, 6-B and Upper Tanana River reopened October 9.

On behalf of the people along the Yukon River who depend on salmon resources to maintain their way of life, the authors of this report would like to acknowledge the efforts of volunteers who assisted in or provided donations to support the communities in their time of need. In particular, the Tanana Chiefs Conference in Fairbanks, Alaska, played a major roll in distributing 654,990 pounds of commercial dry dog food provided by various dog food companies, and concerned individuals shipped the feed to 43 communities located within the Yukon Area (Stanley Ned, TCC, 122 1st Avenue, Suite 600, Fairbanks, Alaska, 99701, personal communications).

Additionally, the community of Eagle, located (river mile 1,213) just downstream of the U.S./Canadian border and relies heavily on the fall chum salmon that originate in Canada for its winter supplies of dog food was provided a variety of replacement items. The run was assessed to be incapable of supporting normal subsistence harvests and was closed before the majority of fall chum salmon arrived in the area. Donations were provided at delivery cost to Eagle by the following organizations: Peter Pan Seafoods of Valdez supplied 54,000 pounds of pink salmon; Alaska Seafood of Anchorage provided 38,000 pounds of chum salmon filets; and Society of Prevention of Cruelty to Animals in Anchorage provided 1,000 pounds of dry dog food donated by patrons (Andy Bassich, P.O. Box 11, Eagle, Alaska, 99738, personal communications). Although it is understood, that nothing could replace the value of the Yukon River chinook salmon as human food or the experiences gained by life at fish camp, these donations alleviated some of the hardships created by the lack of salmon in the Yukon Area during the 2000 season.

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Table 1. Subsistence and personal use salmon harvest estimates which include test fish harvests given away for subsistence use, and related information, Yukon Area, 2000.

Community a	Survey Date or Permit Village	Fishing Households b	Dogs	Estimated Harvest				Primary Gear Used		
				Chinook	Summer Chum	Fall Chum	Coho	Set Nets	Drift Nets	Fish Wheels
Hooper Bay	9/26-9/27	117	269	114	9,301	78	218	117	0	0
Scammon Bay	09/24-9/25	61	182	449	3,876	11	4	61	0	0
Coastal District Total c		178	451	563	13,177	89	222	178	0	0
Sheldon Point	9/25	27	57	684	3,309	105	5	23	4	0
Alakanuk d	9/22-9/23	81	93	1,109	6,259	505	84	57	24	0
Emmonak f	9/21-9/22, 9/25-9/26	98	207	2,205	8,338	1,165	191	41	57	0
Kotlik g	9/22-9/23	55	195	1,893	6,173	3,519	787	43	12	0
<i>District 1 Subtotal</i>		261	552	5,891	24,079	5,294	1,067	164	97	0
Mountain Village h	09/28-9/30	114	204	1,715	7,074	313	376	12	102	0
Pitkas Point	9/27	16	61	753	1,728	5	139	1	15	0
St. Marys	9/26-9/30	88	170	1,810	8,094	255	117	9	79	0
Pilot Station j	09/30-10/2	57	165	2,378	5,223	852	1,708	11	44	0
Marshall k	10/3-10/4	61	341	3,279	3,212	0	11	6	55	0
<i>District 2 Subtotal</i>		336	941	9,935	25,331	1,425	2,351	39	295	0
Russian Mission m	10/4-10/5	48	190	1,860	1,318	37	24	20	28	0
Holy Cross	09/30-10/1	37	48	1,249	569	523	70	4	33	0
Shageluk	10/3-10/4	16	136	805	1,800	38	0	13	3	0
<i>District 3 Subtotal</i>		101	374	3,914	3,687	598	94	37	64	0
Lower Yukon River Total		698	1,867	19,740	53,097	7,317	3,512	240	456	0
Anvik	10/2	6	101	205	425	175	0	4	2	0
Grayling	10/3	38	51	839	474	284	372	0	36	2
Kaltag n	10/10	33	68	1,074	169	190	110	4	29	0
Nulato	10/11	50	197	1,083	377	0	60	0	50	0
Koyukuk	10/12	18	84	175	204	239	138	9	9	0
Galena	10/10-10/12	49	265	788	820	564	71	23	18	4
Ruby	10/13	15	187	1,577	1,233	64	173	6	0	9
<i>District 4 Yukon River Subtotal</i>		209	953	5,741	3,702	1,516	924	46	144	15
Huslia	10/13-10/14	18	88	424	745	35	132	13	3	0
Hughes	10/13	9	94	50	1,079	157	12	8	1	0
Allakaket	10/17-10/18	10	84	41	1,520	36	0	9	0	0
Alatna	10/18-11/1	2	6	8	0	15	0	2	0	0
Bettles	10/18-10/19	0	93	0	0	0	0	0	0	0
<i>Koyukuk River Subtotal</i>		39	365	523	3,344	243	144	32	4	0
<i>District 4 Subtotal</i>		248	1,318	6,264	7,046	1,759	1,068	78	148	15
Tanana	10/29-10/30	24	359	2,895	2,848	9,384	4,826	10	0	14
Rampart	10/31-11/1	12	20	847	47	0	0	12	0	0
Fairbanks NSB p	permits	30	160	1,342	275	8	2	30	0	0
Stevens Village r	10/24-10/25, permits	8	18	466	50	10	0	4	2	2
Birch Creek	11/2	5	15	72	0	0	0	4	0	1
Beaver	10/24	14	30	196	7	0	0	13	1	0
Fort Yukon	10/26-10/27	45	218	988	0	355	129	24	0	21
Circle	permits	8	93	627	109	0	0	4	0	4
Central	permits	2	30	26	1	0	0	2	0	0
Eagle	permits	32	254	1,087	121	32	0	25	0	7
Other t	permits	5	31	205	51	1	30	5	0	0
<i>District 5 Yukon River Subtotal</i>		185	1,228	8,751	3,509	9,790	4,987	133	3	49

-Continued-

Table 1. (page 2 of 2).

Community a	Survey Date or Permit Village	Fishing Households b	Dogs	Estimated Harvest				Primary Gear Used		
				Chinook	Summer Chum	Fall Chum	Coho	Set Nets	Drift Nets	Fish Wheels
Venetie	10/31	5	100	103	0	130	0	5	0	0
Chalkyitsik	10/25	6	51	0	132	0	0	6	0	0
<i>Chandalar/Black Rivers Subtotal</i>		11	151	103	132	130	0	11	0	0
<i>District 5 Subtotal</i>		196	1,379	8,854	3,641	9,920	4,987	144	3	49
Manley	permits	6	269	58	240	0	2,180	5	0	1
Minto l	permits	18	117	0	3	2	3	18	0	0
Nenana	permits	20	377	541	775	8	1,767	9	0	13
Fairbanks NSB v	permits	25	330	425	120	0	0	21	0	2
Other x	permits	21	247	34	3	301	1,200	16	0	0
<i>District 6 Tanana River Subtotal</i>		90	1,340	1,058	1,141	311	5,150	69	0	16
Upper Yukon River Total		534	4,037	16,176	11,828	11,990	11,205	291	151	80
Survey Village Subtotals		1,243	4,447	29,282	71,429	14,830	6,680	574	607	53
Subsistence Permit Subtotals		151	1,908	4,270	1,668	351	5,182	120	0	27
Subsistence Test Fish Subtotals y		-	-	2,852	4,975	4,214	3,077	-	-	-
<i>Subsistence Harvests Subtotal</i>		1,394	6,355	36,404	78,072	19,395	14,939	694	607	80
Personal Use Permit Subtotals		16	-	75	30	1	0	15	0	0
Alaska, Yukon River Total z		1,232	5,904	35,916	64,925	19,307	14,717	531	607	80
Alaska, Yukon Area Total		1,410	6,355	36,479	78,102	19,396	14,939	709	607	80

- a Data collected by Alaska Department of Fish and Game (ADF&G), Division of Commercial Fisheries. Survey data is expanded for number of fishing households, number of dogs, and harvest. Permit data is unexpanded. The number of dogs is based on information obtained from permits issued, while the number of fishing households and their harvest is based on returned permits. Gear data represents the primary gear types used by fishing households. Of the 428 permits issued, 37 households obtained permits for more than one location.
- b Estimated number of households that fished in surveyed communities or number of permit households who reported fishing in permit required areas.
- c A 1986 Hooper Bay salmon tagging study conducted by the Bering Sea Fishermen's Association (BSFA) suggested that harvests in the Nuok Spit area of Hooper Bay intercepted Yukon River and Norton Sound chum salmon stocks.
- d Includes 13 chinook, 25 summer chum, 29 fall chum, and 9 coho salmon from ADF&G test fish catches.
- f Includes 799 chinook, 1,198 summer chum, 1,157 fall chum, and 173 coho salmon from ADF&G test fish catches.
- g Includes 532 chinook, 1,276 summer chum, 1,735 fall chum, and 767 coho salmon from ADF&G test fish catches.
- h Includes 269 fall chum and 313 coho salmon from BSFA test fish catches.
- j Includes 450 chinook, 2,141 summer chum, 834 fall chum, and 1,705 coho salmon from ADF&G test fish catches.
- k Includes 1,024 chinook and 335 summer chum salmon from ADF&G test fish catches and also includes 11 chinook salmon from the radio telemetry project.
- m Includes 23 chinook salmon from ADF&G radio telemetry project.
- n Includes 190 fall chum and 110 coho salmon from City of Kaltag test fish catches.
- p Fairbanks North Star Borough (Fairbanks NSB) households that obtained a permit and indicated they fished in a Yukon River permit required area.
- r Permit harvest information from Stevens Village residents was used to complement the information obtained by the survey.
- s Other includes residents of Anchorage, Manley, Nenana, Minto and the Upper Tanana River drainage villages of Northway and Tok who obtained a household permit and fished in a Yukon River permit required area.
- t Number of fishing households includes seven Tolovana River pike permits that were fished.
- v Fairbanks North Star Borough (Fairbanks NSB) households that obtained a permit and indicated they fished in the Tanana River permit required area. The number of fishing households includes one Tolovana River pike permit that was fished.
- x Other includes residents of Denali Park, Gakona, Healy, Juneau, Slana, Tanana, and the Upper Tanana River drainage villages of Delta Junction, Northway, Tanacross, and Tok who fished in the Tanana River.
- y Test fish given away for subsistence use.
- z Yukon River Total does not include Coastal District.

Table 2. Estimated total number of households, the sample size, the number contacted, and the percentage of the sampled households that were contacted in surveyed villages, by harvest stratum, with village and district totals, Yukon Area, 2000. a

Community	Unknown			Does Not Harvest Salmon			Light Harvester			Medium Harvester			Heavy Harvester			Community Totals		
	N	n	%C	N	n	%C	N	n	%C	N	n	%C	N	n	%C	N	n	%C
Hooper Bay	23	23	8	34.7	83	5	37.5	28	21	75.0	17	13	76.4	2	2	218	78	60.2
Scammon Bay	10	10	5	50.0	24	5	20.0	16	15	93.7	2	2	100.0	0	0	89	33	47.2
Coastal District	33	33	13	39.3	107	13	38.4	44	36	81.8	19	15	78.9	2	2	307	111	71.63.9
Sheldon's Point	5	5	2	40.0	6	4	66.6	23	19	82.6	4	4	100.0	0	0	38	38	29.76.3
Aiakuk	22	22	7	31.8	44	5	4.0	77	23	15.65.2	9	9	66.6	0	0	152	59	32.54.2
Emmonak	46	46	22	47.8	60	18	15.83.3	77	39	33.84.6	14	14	100.0	1	1	198	118	84.71.1
Kolik	2	2	1	50.0	26	5	4.0	55	17	15.88.2	9	9	88.8	2	2	94	35	30.85.7
District 1	75	75	32	42.6	136	34	27.79.4	232	102	82.80.3	36	36	86.1	3	3	482	250	175.70.9
Mountain Village	32	32	18	56.2	36	5	4.0	87	26	24.92.3	14	14	85.7	1	1	170	78	59.75.6
Piccas Point	0	0	0	-	8	8	7.87.5	13	13	10.76.9	6	6	83.3	0	0	27	27	22.81.4
St. Mary's	33	33	17	51.5	42	5	3.60.0	54	16	13.81.2	16	16	100.0	3	3	148	73	52.71.2
Pilot Station	21	21	16	76.1	33	10	9.90.0	53	27	27.100.0	4	4	75.0	0	0	111	62	55.88.7
Marshall	14	14	8	57.1	15	5	4.0	48	14	11.78.5	8	8	87.5	1	1	86	42	30.71.4
District 2	100	100	59	59.0	134	33	27.81.8	255	96	85.88.5	48	48	89.5	5	5	642	282	218.77.3
Russian Mission	6	6	5	83.3	27	5	3.60.0	29	9	7.77.7	5	5	100.0	1	1	68	26	21.80.7
Holy Cross	1	1	0	0.0	16	5	4.0	39	20	16.80.0	6	6	100.0	0	0	62	32	26.81.2
Shageluk	10	10	4	40.0	7	7	5.71.4	13	13	10.76.9	4	4	75.0	6	6	40	26	65.0
District 3	17	17	9	52.9	50	17	12.70.5	81	42	33.78.5	15	15	93.3	7	7	170	98	73.74.4
Anvik	3	3	2	66.6	15	5	4.0	16	5	5.100.0	6	6	83.3	1	1	41	20	16.80.0
Grayling	1	1	1	100.0	11	5	3.60.0	21	6	6.100.0	15	15	100.0	0	0	48	27	23.85.1
Kallag	8	8	5	62.5	6	5	3.60.0	43	13	12.92.3	5	5	100.0	0	0	62	31	25.80.6
Nulato	8	8	5	62.5	46	5	4.0	36	11	10.90.9	11	11	100.0	0	0	101	35	30.85.7
Koyukuk	3	3	0	0.0	16	5	2.40.0	18	5	4.80.0	3	3	88.6	2	2	42	16	10.55.5
Gaiena	44	44	29	65.9	101	10	7.70.0	57	17	11.64.7	11	11	9.81.8	3	3	266.6	85	58.68.2
Ruby	11	11	10	90.9	45	5	5.10.0	14	5	4.80.0	3	3	100.0	4	4	77	28	26.92.8
Huslia	9	9	5	55.5	60	6	5.83.3	21	6	3.50.0	6	6	2.33.3	0	0	96	27	15.55.5
Hughes	1	1	1	100.0	15	15	10.66.6	5	5	3.100.0	2	2	100.0	1	1	24	24	17.70.8
Alakaket	12	12	5	41.6	27	5	3.60.0	15	5	5.100.0	5	5	100.0	3	3	62	30	21.70.0
Alatna	0	0	0	-	3	3	1.00.0	3	3	3.100.0	1	1	100.0	0	0	7	7	100.0
Beffles	11	11	5	45.4	17	17	12.70.5	2	2	2.100.0	0	0	-	0	0	30	30	19.63.3
District 4	111	111	68	61.2	362	86	61.70.9	251	83	68.81.9	68	68	85.2	14	14	806	362	267.73.7
Tanana	21	21	6	28.5	58	17	14.82.3	21	11	7.83.6	7	7	85.7	14	14	121	70	44.62.8
Rampart	2	2	0	0.0	9	9	6.66.6	3	3	0.0	14	14	9.64.2	0	0	28	28	15.53.5
Stevens Village	12	12	4	33.3	13	5	3.60.0	10	5	3.60.0	5	5	4.80.0	2	2	42	29	16.55.1
Birch Creek	1	1	0	0.0	8	8	7.87.5	6	6	5.83.3	0	0	-	0	0	15	15	12.80.0
Beaver	8	8	2	25.0	14	14	10.71.4	10	10	8.80.0	5	5	3.60.0	0	0	37	37	23.82.1
Fort Yukon	0	0	0	-	107	11	6.54.5	43	13	6.46.1	18	18	15.83.3	1	1	169	43	27.62.7
Venette	11	11	2	18.1	37	5	4.80.0	6	5	3.60.0	3	3	2.66.6	3	3	60	27	14.51.8
Chalkyitsik	2	2	2	100.0	33	5	1.00.0	3	3	3.100.0	3	3	2.66.6	0	0	41	13	12.92.3
District 5	57	57	16	28.0	279	74	55.74.3	102	56	35.62.5	55	55	41.74.5	20	20	513	262	163.62.2
Survey Totals	393	393	197	50.1	1,068	257	187.72.7	1,067	423	339.80.1	241	241	83.6	51	51	2,820	1,365	967.70.8

a Total number of households (N), the sample size (n), the number of households contacted (C), and the percent of the sampled households that were contacted (%C). Dashes indicate indefinable values.

Table 3. Estimated number of people in households in surveyed villages, by harvest stratum, with village and district totals, Yukon Area, 2000. a

Community	Unknown			Does Not Harvest Salmon			Light Harvester			Medium Harvester			Heavy Harvester			Total		Combined				
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total	N	Total	Est	CI(95%) (+/-)	
Hooper Bay Scammon Bay Coastal District	23	8	4.8	0.8	83	3	3.0	1.0	93	21	4.4	0.5	17	13	6.0	0.4	218	47	887	192		
	10	5	5.8	0.8	24	2	6.5	1.4	53	15	7.0	0.5	2	2	5.0	0.0	0	0	89	24	595	89
	33	13	5.1	0.6	107	5	3.8	0.8	146	36	5.4	0.3	19	15	5.9	0.4	2	2	307	71	1,482	211
Sheldon's Point Alakanuk Emmonak Kotlik District 1	5	2	4.5	1.9	6	4	4.8	0.3	23	18	5.2	0.3	4	4	4.3	0.0	0	0	38	28	188	24
	22	6	4.8	1.0	44	4	3.8	1.2	77	14	3.8	0.6	9	6	4.8	0.4	0	0	152	30	612	143
	46	22	2.6	0.3	60	14	3.5	0.3	77	32	5.1	0.4	14	12	4.1	0.3	1	1	198	81	787	77
District 1	2	1	1.0	-	26	4	4.5	1.4	55	15	5.5	0.6	9	8	4.6	0.2	2	2	94	30	472	101
	75	31	3.3	0.4	136	26	3.8	0.5	232	79	4.8	0.2	36	30	4.4	0.1	3	3	482	169	2,059	193
Mountain Village Pitkas Point St. Mary's Pilot Station Marshall District 2	32	18	3.1	0.4	36	4	6.5	0.9	87	24	5.7	0.5	14	12	4.3	0.2	1	1	170	59	904	116
	0	0	-	-	8	7	3.0	0.2	13	10	4.0	0.2	6	5	4.0	0.3	0	0	27	22	100	9
	33	17	3.2	0.3	42	3	3.0	0.6	54	13	3.9	0.6	16	16	5.4	0.0	3	3	148	52	542	84
District 2	21	16	4.8	0.3	33	9	4.1	0.7	53	26	5.8	0.4	4	3	4.7	0.6	0	0	111	54	563	67
	14	8	4.8	0.4	15	4	4.3	0.4	48	11	4.8	0.6	8	7	4.0	0.2	1	0	86	30	394	64
	100	59	3.7	0.2	134	27	4.4	0.4	255	84	5.1	0.2	48	43	4.6	0.1	5	4	542	217	2,502	170
Russian Mission Holy Cross Shageluk District 3	6	5	4.6	0.3	27	3	6.3	1.1	29	7	4.5	0.7	5	5	3.8	0.0	1	1	68	21	354	72
	1	0	-	-	16	4	1.5	0.4	39	15	3.2	0.4	6	6	3.8	0.0	0	0	62	25	172	38
	10	4	3.0	0.8	7	5	3.8	0.4	13	9	3.1	0.4	4	2	2.5	0.4	6	4	40	24	134	21
District 3	17	9	3.4	0.5	50	12	4.4	0.6	81	31	3.7	0.3	15	13	3.5	0.1	7	5	170	70	660	84
District 3	3	2	3.5	0.3	15	4	2.5	0.8	16	5	2.4	0.6	6	5	4.4	0.4	1	0	41	16	113	31
	1	1	9.0	0.0	11	3	2.0	0.5	21	6	3.6	0.6	15	13	4.5	0.2	0	0	48	23	175	31
	8	5	2.4	0.4	6	3	4.3	1.3	43	12	3.2	0.4	5	5	4.4	0.0	0	0	62	25	207	43
District 3	8	4	4.0	0.3	46	4	5.3	1.1	36	10	3.2	0.4	11	9	3.9	0.2	0	0	101	27	431	100
	3	0	-	-	16	2	2.5	0.5	18	4	1.7	0.4	3	2	3.0	0.6	2	2	42	10	86	21
	44	29	2.7	0.2	101	7	2.9	0.3	57	10	3.3	0.4	11	9	4.0	0.2	3	2	216	57	645	81
District 3	11	10	1.7	0.1	45	5	1.4	0.2	14	4	1.7	0.4	3	3	3.0	0.0	4	4	77	26	131	23
	9	5	2.8	0.3	60	5	3.0	0.7	21	3	3.0	0.5	6	2	3.0	0.8	0	0	96	15	286	83
	1	1	3.0	0.0	15	10	2.6	0.4	5	3	2.3	0.2	2	2	5.5	0.0	1	1	24	17	67	11
District 3	12	4	3.3	0.4	27	3	1.0	0.0	15	5	4.2	0.8	5	5	4.0	0.0	3	3	62	20	165	26
	0	0	-	-	3	3	2.0	0.0	3	3	4.0	0.0	1	1	5.0	0.0	0	0	7	7	23	0
	11	5	4.2	1.1	17	12	2.0	0.2	2	2	1.0	0.0	0	0	-	-	0	0	30	19	82	23
District 4	111	66	2.9	0.1	362	61	2.8	0.2	251	67	3.1	0.1	68	56	4.0	0.1	14	12	806	262	2,411	172
District 4	21	6	3.7	0.8	58	14	1.9	0.3	21	7	2.7	0.3	7	6	3.5	0.3	14	10	121	43	314	53
	2	0	-	-	9	6	1.5	0.1	3	0	-	-	14	8	2.3	0.2	0	0	28	14	45	7
	12	4	2.8	0.9	13	3	2.7	0.8	10	3	3.6	0.5	5	4	2.5	0.2	2	2	42	16	126	31
District 4	1	0	-	-	8	6	2.3	0.2	6	5	3.2	0.4	0	0	-	-	0	0	15	11	38	5
	8	2	1.0	0.0	14	10	2.9	0.3	10	8	2.5	0.1	5	3	2.0	0.0	0	0	37	23	84	9
	0	0	-	-	107	6	3.0	0.9	43	6	2.6	0.6	18	14	4.1	0.2	1	0	169	26	509	190
District 4	11	2	3.5	1.4	37	4	4.3	1.1	6	3	4.0	0.7	3	2	5.0	0.6	3	3	60	14	250	82
	2	2	3.0	0.0	33	5	2.4	0.4	3	2	3.0	0.5	3	2	5.0	0.6	0	0	41	11	109	24
	57	16	2.9	0.5	279	54	2.8	0.4	102	34	2.8	0.2	55	39	3.3	0.1	20	15	513	158	1,474	217
Survey Totals	393	194	3.4	0.1	1,068	185	3.3	0.2	1,067	331	4.3	0.1	241	196	4.2	0.1	51	41	2,820	947	10,588	441

a The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95 percent confidence interval, CI (95%). Dashes indicate indefinable values.

Table 4. Estimated number of subsistence fishing households in surveyed villages, by harvest stratum, with village and district totals, Yukon Area, 2000. a

Community	Unknown			Does Not Harvest Salmon			Light Harvester			Medium Harvester			Heavy Harvester			Combined									
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total	N	Est	CI(95%)	(+/-)				
Hooper Bay	23	8	0.4	0.2	83	3	0.3	0.3	93	21	0.6	0.0	17	13	1.0	0.0	216	47	117	56					
	10	5	0.2	0.1	24	2	0.5	0.5	53	15	0.8	0.0	2	2	0.5	0.0	89	24	61	24					
	33	13	0.3	0.1	107	5	0.4	0.3	146	36	0.7	0.0	19	15	0.9	0.0	307	71	178	61					
Coastal District																									
	5	2	0.5	0.4	6	4	0.5	0.2	23	19	0.7	0.0	4	4	0.8	0.0	38	29	27	5					
	22	7	0.4	0.2	44	4	0.3	0.2	77	15	0.6	0.1	9	6	1.0	0.0	152	32	81	28					
Alakanuk	46	22	0.3	0.1	60	15	0.3	0.1	77	33	0.6	0.0	14	13	0.8	0.0	198	84	98	17					
	2	1	0.0	-	26	4	0.0	0.0	55	15	0.8	0.0	9	8	1.0	0.0	94	30	55	10					
	75	32	0.3	0.1	136	27	0.3	0.1	232	82	0.7	0.0	36	31	0.9	0.0	482	175	261	34					
District 1																									
	32	18	0.3	0.1	36	4	0.5	0.3	87	24	0.8	0.0	14	12	0.8	0.0	170	59	114	23					
	0	0	-	-	8	7	0.3	0.1	13	10	0.7	0.0	6	5	0.8	0.1	27	22	16	2					
St. Mary's	33	17	0.7	0.1	42	3	0.3	0.3	54	13	0.6	0.1	16	16	0.9	0.0	3	3	1.0	0.0	148	52	88	30	
	21	16	0.4	0.1	33	9	0.1	0.1	53	27	0.7	0.0	4	3	1.0	0.0	0	0	-	-	111	55	57	9	
	14	8	0.5	0.1	15	4	0.5	0.3	48	11	0.8	0.1	8	7	0.9	0.1	1	0	-	-	85	30	61	13	
Marshall	100	59	0.5	0.0	134	27	0.3	0.1	255	85	0.8	0.0	48	43	0.9	0.0	5	4	0.8	0.0	542	218	336	41	
District 2																									
	6	5	0.8	0.1	27	3	0.3	0.3	29	7	1.0	0.0	5	5	0.8	0.0	1	1	1.0	0.0	68	21	48	17	
	1	0	-	-	16	4	0.3	0.2	39	16	0.6	0.0	6	6	1.0	0.0	0	0	-	-	62	26	37	10	
Holy Cross	10	4	0.3	0.2	7	5	0.0	0.0	13	10	0.4	0.0	4	3	0.7	0.2	6	4	1.0	0.0	40	26	16	4	
	17	9	0.4	0.1	50	12	0.3	0.2	81	33	0.8	0.0	15	14	0.8	0.0	7	5	1.0	0.0	170	73	101	20	
District 3																									
	3	2	0.5	0.3	15	4	0.0	0.0	16	5	0.0	0.0	6	5	0.8	0.1	1	0	-	-	41	16	6	2	
	1	1	0.0	0.0	11	3	0.7	0.3	21	6	0.8	0.1	15	13	0.8	0.0	0	0	-	-	48	23	38	9	
Grayling	8	5	0.6	0.2	6	3	0.3	0.2	43	12	0.5	0.1	5	5	1.0	0.0	0	0	-	-	62	25	33	11	
	8	5	0.6	0.2	46	4	0.3	0.2	35	10	0.7	0.1	11	11	0.7	0.0	0	0	-	-	101	30	50	24	
	3	0	-	-	16	2	0.5	0.5	18	4	0.2	0.2	3	2	1.0	0.0	2	2	1.0	0.0	42	10	18	17	
Koyukuk	44	29	0.2	0.1	101	7	0.0	0.0	57	11	0.4	0.1	11	9	0.9	0.1	3	2	1.0	0.0	216	58	49	16	
	11	10	0.0	0.0	45	5	0.0	0.0	14	4	0.7	0.2	3	3	0.3	0.0	4	4	0.8	0.0	77	26	15	6	
	9	5	0.2	0.1	60	5	0.8	0.2	21	3	0.6	0.3	6	2	0.5	0.4	0	0	-	-	95	15	18	7	
Huslia	1	1	0.0	0.0	15	10	0.2	0.1	5	3	0.6	0.2	2	2	1.0	0.0	1	1	1.0	0.0	24	17	9	3	
	12	5	0.4	0.2	27	3	0.0	0.0	15	5	0.0	0.0	5	5	0.6	0.0	3	3	0.7	0.0	62	21	10	4	
	0	0	-	-	3	3	0.0	0.0	3	3	0.3	0.0	1	1	1.0	0.0	0	0	-	-	7	7	2	0	
Alaina	11	5	0.0	0.0	17	12	0.0	0.0	2	2	0.0	0.0	0	0	-	-	0	0	-	-	30	19	0	0	
	111	68	0.3	0.0	362	61	0.2	0.1	251	68	0.5	0.0	68	58	0.8	0.0	14	12	0.8	0.0	806	267	248	38	
District 4																									
	21	6	0.2	0.1	58	14	0.0	0.0	21	7	0.2	0.1	7	6	0.5	0.1	14	11	0.8	0.0	121	44	24	9	
	2	0	-	-	9	6	0.2	0.1	3	0	-	-	14	9	0.8	0.1	0	0	-	-	28	15	12	3	
Rampart	12	4	0.0	0.0	13	3	0.0	0.0	10	3	0.3	0.2	5	4	0.5	0.1	2	2	1.0	0.0	42	16	8	6	
	1	0	-	-	8	7	0.1	0.1	6	5	0.6	0.1	0	0	-	-	0	0	-	-	15	12	5	1	
	8	2	0.0	0.0	14	10	0.2	0.1	10	8	0.6	0.0	5	3	1.0	0.0	0	0	-	-	37	23	14	3	
Beaver	0	0	-	-	107	6	0.2	0.2	43	6	0.3	0.2	18	15	0.7	0.1	1	0	-	-	169	27	45	38	
	11	2	0.0	0.0	37	4	0.0	0.0	6	3	0.3	0.2	3	2	0.5	0.3	3	3	0.3	0.0	60	14	5	3	
	2	2	1.0	0.0	33	5	0.0	0.0	3	3	0.6	0.0	3	2	0.5	0.3	0	0	-	-	41	12	6	2	
Chalkyitsik	57	16	0.1	0.1	279	55	0.1	0.1	102	35	0.4	0.0	55	41	0.7	0.0	20	16	0.7	0.0	513	163	119	40	
Survey Totals	393	197	0.3	0.0	1,068	187	0.2	0.0	1,067	339	0.6	0.0	241	202	0.8	0.0	51	42	0.8	0.0	2,820	967	1,243	100	

a The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95 percent confidence interval, CI (95%). Dashes indicate indefinable values.

b Due to small sample size the mean was overestimated. The historical mean since 1996 was 0.0

c Estimate is based on the historical average of subsistence fishing households from 1992 through 1999

Table 5. Primary fishing gear used to harvest salmon by subsistence fishing households in surveyed villages, Yukon Area, 2000.

Community	Total Number of Households	Number of Households		Primary Gear Used					
		Surveyed	Subsistence Fished	Set Gillnets	Drift Gillnets	Fishwheels	Hook and Line		
Hooper Bay	218	47 (21.6%)	33 (70.2%)	33 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Scammon Bay	89	24 (27.0%)	16 (66.7%)	16 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Coastal District	307	71 (23.1%)	49 (89.0%)	49 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Sheldon's Point	38	29 (76.3%)	21 (72.4%)	18 (85.7%)	3 (14.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Alakanuk	152	32 (21.1%)	20 (62.5%)	14 (70.0%)	6 (30.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Emmonak	198	84 (42.4%)	45 (53.6%)	19 (42.2%)	26 (57.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Kotlik	94	30 (31.9%)	22 (73.3%)	17 (77.3%)	5 (22.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
District 1	482	175 (36.3%)	108 (81.7%)	68 (63.0%)	40 (37.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Mountain Village	170	59 (34.7%)	39 (66.1%)	4 (10.3%)	35 (89.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Pitkas Point	27	22 (81.5%)	13 (59.1%)	1 (7.7%)	12 (92.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
St. Mary's	148	52 (35.1%)	38 (73.1%)	4 (10.5%)	34 (89.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Pilot Station	111	55 (49.5%)	31 (56.4%)	6 (20.0%)	23 (76.7%)	0 (0.0%)	1 (3.3%)	0 (0.0%)	0 (0.0%)
Marshall	86	30 (34.9%)	21 (70.0%)	2 (9.5%)	19 (90.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
District 2	542	218 (40.2%)	142 (65.1%)	17 (12.1%)	123 (87.2%)	0 (0.0%)	1 (0.7%)	0 (0.0%)	0 (0.0%)
Russian Mission	68	21 (30.9%)	17 (81.0%)	7 (41.2%)	10 (58.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Holy Cross	62	26 (41.9%)	18 (69.2%)	2 (11.8%)	15 (88.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Shageluk	40	26 (65.0%)	11 (42.3%)	9 (81.8%)	2 (18.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
District 3	170	73 (42.9%)	46 (83.0%)	18 (40.0%)	27 (60.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Anvik	41	16 (39.0%)	5 (31.3%)	3 (60.0%)	2 (40.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Grayling	48	23 (47.9%)	18 (78.3%)	0 (0.0%)	17 (94.4%)	1 (5.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Katag	62	25 (40.3%)	15 (60.0%)	2 (13.3%)	13 (86.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Nulato	101	30 (29.7%)	19 (63.3%)	0 (0.0%)	18 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Koyukuk	42	10 (23.8%)	6 (60.0%)	3 (50.0%)	3 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Galena	216	58 (26.9%)	22 (37.9%)	10 (45.5%)	8 (36.4%)	2 (9.1%)	2 (9.1%)	0 (0.0%)	0 (0.0%)
Ruby	77	26 (33.8%)	7 (26.9%)	3 (42.9%)	0 (0.0%)	4 (57.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Huslia	96	15 (15.6%)	8 (53.3%)	5 (71.4%)	1 (14.3%)	0 (0.0%)	1 (14.3%)	0 (0.0%)	0 (0.0%)
Hughes	24	17 (70.8%)	7 (41.2%)	6 (85.7%)	1 (14.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Allakaket	62	21 (33.9%)	7 (33.3%)	6 (85.7%)	0 (0.0%)	0 (0.0%)	1 (14.3%)	0 (0.0%)	0 (0.0%)
Alaina	7	7 (100.0%)	2 (28.6%)	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Bettles	30	19 (63.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
District 4	806	287 (33.1%)	116 (43.4%)	40 (35.1%)	63 (55.3%)	7 (8.1%)	4 (3.5%)	0 (0.0%)	0 (0.0%)
Tanana	121	44 (36.4%)	15 (34.1%)	6 (42.9%)	0 (0.0%)	8 (57.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Rampart	28	15 (53.6%)	8 (53.3%)	7 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Stevens Village	42	16 (38.1%)	5 (31.3%)	3 (60.0%)	1 (20.0%)	1 (20.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Birch Creek	15	12 (80.0%)	4 (33.3%)	3 (75.0%)	0 (0.0%)	1 (25.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Beaver	37	23 (62.2%)	10 (43.5%)	9 (90.0%)	1 (10.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Fort Yukon	169	27 (16.0%)	14 (51.9%)	7 (53.8%)	0 (0.0%)	6 (46.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Venetie	60	14 (23.3%)	3 (21.4%)	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Chalkyitsik	41	12 (29.3%)	5 (41.7%)	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
District 5	513	163 (31.8%)	64 (39.3%)	43 (70.5%)	2 (3.3%)	16 (26.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Survey Totals	2,820	967 (34.3%)	525 (54.3%)	235 (45.4%)	255 (49.2%)	23 (4.4%)	5 (1.0%)	0 (0.0%)	0 (0.0%)

Table 6. Subsistence salmon harvest estimates and corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2000.

Community	Total Households	Households Contacted ^a	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
			Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)
Hooper Bay	218	47	114	64	9,301	3,431	78	83	218	210
Scammon Bay	89	24	449	188	3,876	1,461	11	18	4	6
Coastal District	307	71	563	198	13,177	3,729	89	85	222	210
Sheldon's Point	38	29	684	464	3,309	1,579	105	83	5	4
Alakanuk	152	32	1,096	673	6,234	2,504	476	687	75	73
Emmonak	198	83	1,406	372	7,140	1,724	8	4	18	9
Kotlik	94	30	1,361	1,020	4,897	2,024	1,784	1,791	20	0
District 1	482	174	4,547	1,359	21,580	3,979	2,373	1,920	118	74
Mountain Village	170	59	1,715	499	7,074	1,776	44	51	63	67
Pitkas Point	27	22	753	201	1,728	359	5	4	139	84
St. Mary's	148	51	1,810	444	8,094	2,376	255	236	117	43
Pilot Station	111	55	1,928	536	3,082	807	18	24	3	3
Marshall	86	30	2,244	865	2,877	1,020	0	0	11	13
District 2	542	217	8,450	1,234	22,855	3,259	322	243	333	116
Russian Mission	68	21	1,837	675	1,318	579	37	28	24	21
Holy Cross	62	26	1,249	508	569	251	523	332	70	0
Shageluk	40	26	805	294	1,800	608	38	57	0	0
District 3	170	73	3,891	895	3,687	876	598	338	94	21
Anvik	41	16	205	49	425	311	175	80	0	0
Grayling	48	23	839	268	474	263	284	266	372	465
Kaltag	62	25	1,074	466	169	125	0	0	0	0
Nulato	101	30	1,083	540	377	367	0	0	60	38
Koyukuk	42	10	175	67	204	31	239	170	138	37
Galena	216	58	788	257	820	512	564	396	71	46
Ruby	77	26	1,577	1,010	1,233	924	64	0	173	0
Huslia	96	15	424	33	745	1,272	35	64	132	177
Hughes	24	17	50	27	1,079	187	157	124	12	0
Allakaket	62	21	41	0	1,520	0	36	54	0	0
Alatna	7	7	8	0	0	0	15	0	0	0
Bettles	30	19	0	0	0	0	0	0	0	0
District 4	806	267	6,264	1,294	7,046	1,757	1,569	534	958	503
Tanana	121	44	2,895	660	2,848	1,123	9,384	4,146	4,826	2,644
Rampart	28	15	847	373	47	45	0	0	0	0
Stevens Village	42	16	466	319	50	0	0	0	0	0
Birch Creek	15	12	72	47	0	0	10	8	0	0
Beaver	37	23	196	57	7	5	0	0	0	0
Fort Yukon	169	26	988	844	0	0	355	197	129	119
Venetie	60	14	103	122	0	0	130	34	0	0
Chalkyitsik	41	12	0	0	132	85	0	0	0	0
District 5	513	162	5,567	1,187	3,084	1,128	9,879	4,150	4,955	2,646
Survey Totals	2,820	964	29,282	2,700	71,429	6,744	14,830	4,623	6,680	2,706

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 7. Estimated subsistence harvest of chinook salmon by fishing location in surveyed villages, Yukon Area, 2000.

Community	Coastal District	Districts			Subdistricts					River Drainages				Total by Community		
		1	2	3 a	4-A b	4-B	4-C	5-A	5-B	5-C	5-D	Innoko	Koyukuk		Chandalar d	Porcupine
Hooper Bay	114	0														114
Scammon Bay	431	18														449
Coastal District	545	18														563
Sheldon's Point	100	584														684
Alakanuk	0	1,096														1,096
Eminonak	0	1,406														1,406
Kotlik	147	1,214														1,361
District 1	247	4,300														4,547
Mountain Village	428	1,287	0													1,715
Pikas Point	228	525	0													753
St. Mary's	224	1,586	0													1,810
Pilot Station	0	1,928	0													1,928
Marshall	0	2,016	228													2,244
District 2	880	7,342	228													8,450
Russian Mission	0	10	1,827	0												1,837
Holy Cross	12	0	1,237	0												1,249
Shageluk	0	0	557	248												805
District 3	12	10	3,621	248												3,891
Anvik			114	91	0	0	0						0			205
Grayling			0	839	0	0	0						0			839
Katlag			0	1,074	0	0	0						0			1,074
Nulato			0	1,083	0	0	0						0			1,083
Koyukuk			0	143	32	0	0						0			175
Galena			0	319	374	95	0						0			788
Ruby			0	0	203	1,374	0						0			1,577
Huslia			0	170	0	0	0						254			424
Hughes			0	0	0	0	0						50			50
Atkasook			0	0	0	0	0						41			41
Alatna			0	0	0	0	0						8			8
Bettles			0	0	0	0	0						0			0
District 4	114	3,719	609	1,469									353			6,264
Tanana			310	2,585	0	0	0						0			2,895
Rampart			0	78	769	0	0						0			847
Stevens Village			0	15	270	181	0						0			466
Birch Creek			0	0	0	72	0						0			72
Beaver			0	0	0	0	0						0			196
Fort Yukon			0	0	0	988	0						0			988
Venette			0	0	0	0	0						0			103
Chalkyitsik			0	0	0	0	0						0			0
District 5			310	2,678	1,039	1,540							0			5,567
Survey Totals	792	5,210	7,352	3,963	3,967	609	1,469	310	2,678	1,039	1,540	0	353	0	0	29,282

a Except for the Innoko River drainage
b Except for the Koyukuk River drainage
c Except for the Chandalar and Porcupine River drainages
d Except for the Black River drainage.

Table 8. Estimated subsistence harvest of summer chum salmon by fishing location in surveyed villages, Yukon Area, 2000.

Community	Coastal District	Districts			Subdistricts					River Drainages				Total by Community		
		1	2	3 a	4-A b	4-B	4-C	5-A	5-B	5-C	5-D	Innoko	Koyukuk		Chandalar	Porcupine
Hooper Bay	7,972	1,329														9,301
Scammon Bay	3,346	530														3,876
Coastal District	11,318	1,859														13,177
Sheldon's Point	245	3,064														3,309
Alakanuk	0	6,234														6,234
Emmonak	0	7,140														7,140
Kotlik	441	4,456														4,897
District 1	686	20,894														21,580
Mountain Village	1,921	5,153	0													7,074
Pikias Point	94	1,634	0													1,728
St. Mary's	996	7,098	0													8,094
Pilot Station	0	3,082	0													3,082
Marshall	0	2,507	370													2,877
District 2	3,011	19,474	370													22,855
Russian Mission		5	1,313	0												1,318
Holy Cross		0	569	0												569
Shageluk		0	1,478	322												1,800
District 3		5	3,360	322												3,687
Anvik			425	0	0	0	0					0				425
Grayling			0	474	0	0	0					0				474
Kelling			0	169	0	0	0					0				169
Nulato			0	377	0	0	0					0				377
Koyukuk			0	188	16	0	0					0				204
Galena			0	76	744	0	0					0				820
Ruby			0	0	7	1,226	0					0				1,233
Huslia			0	45	0	0	0					700				745
Hughes			0	0	0	0	0					1,079				1,079
Allakaket			0	0	0	0	0					1,520				1,520
Alatna			0	0	0	0	0					0				0
Bettles			0	0	0	0	0					0				0
District 4			425	1,329	767	1,226						3,299				7,046
Tanana							129	2,719	0	0						2,848
Rampart							0	0	47	0	0					47
Stevens Village							0	0	0	50	0					50
Birch Creek							0	0	0	0	0					0
Beaver							0	0	0	7	0					7
Fort Yukon							0	0	0	0	0					0
Veneta							0	0	0	0	0					0
Chalkyitsik							0	0	0	132	0					132
District 5							129	2,719	47	189						3,084
Survey Totals	12,004	25,764	19,479	4,155	1,651	767	1,226	129	2,719	47	189	0	3,299	0	0	71,429

a Except for the Innoko River drainage.

b Except for the Koyukuk River drainage.

c Except for the Chandalar and Porcupine River drainages.

d Except for the Black River drainage.

Table 9. Estimated subsistence harvest of fall chum salmon by fishing location in surveyed villages, Yukon Area, 2000.

Community	Coastal District	Districts			Subdistricts					River Drainages				Total by Community			
		1	2	3 a	4-A b	4-B	4-C	5-A	5-B	5-C	5-D	Innoko	Koyukuk		Chandalar d	Porcupine	Black
Hooper Bay	78																78
Scammon Bay	11																11
Coastal District	89																89
Sheldon's Point	3	102															105
Alakanuk	0	476															476
Emmonak	0	8															8
Kotlik	220	1,564															1,784
District 1	223	2,150															2,373
Mountain Village		26	18														44
Pikias Point		0	5														5
St. Mary's		0	255														255
Pilot Station		0	18														18
Marshall		0	0														0
District 2		26	296														322
Russian Mission		0		37													37
Holy Cross		44		479													523
Shageluk		0		38													38
District 3		44		554													598
Anvik				168	7	0	0	0					0				175
Grayling					284	0	0	0					0				284
Keltag					0	0	0	0					0				0
Nulato					0	0	0	0					0				0
Koyukuk					239	0	0	0					0				239
Galena					215	341	8						0				564
Ruby					0	0	64						0				64
Huslia					35	0	0	0					0				35
Hughes					0	0	0	0					157				157
Allakaket					0	0	0	0					36				36
Alatna					0	0	0	0					15				15
Bottles					0	0	0	0					0				0
District 4				168	780	341	72						208				1,569
Tanana								1,350	8,034				0				9,384
Rampart								0	0				0				0
Stevens Village								0	0				0				0
Birch Creek								0	0			10	0				10
Beaver								0	0			0	0				0
Fort Yukon								0	0			355	0				355
Venetie								0	0			100	30				130
Chalkyitsik								0	0			0	0				0
District 5								1,350	8,034			465		30			9,879
Survey Totals	312	2,220	296	722	780	341	72	1,350	8,034	0	465	0	208	30	0	0	14,830

a Except for the Innoko River drainage.

b Except for the Koyukuk River drainage.

c Except for the Chandalar and Porcupine River drainages.

d Except for the Black River drainage.

Table 10. Estimated subsistence harvest of coho salmon by fishing location in surveyed villages, Yukon Area, 2000.

Community	Coastal District		Districts		3 a		4-A b		4-B	4-C	Subdistricts		5-A	5-B	5-C	5-D	River Drainages			Total by Community
	District	1	2														Innoko	Koyukuk	Chandalar d Porcupine	Black
Hooper Bay	218																			218
Scammon Bay	4																			4
Coastal District	222																			222
Sheldon's Point	5	0																		5
Alakanuk	0	75																		75
Emmonak	0	18																		18
Kolik	0	20																		20
District 1	5	113																		118
Mountain Village		18	45																	63
Pitkas Point		0	139																	139
St. Mary's		0	117																	117
Pilot Station		0	3																	3
Marshall		0	11																	11
District 2	18	315																		333
Russian Mission			24																	24
Holy Cross			70																	70
Shageluk			0																	0
District 3			94																	94
Anvik																				0
Grayling																				372
Kallag																				0
Nulato																				60
Koyukuk																				138
Galena																				71
Ruby																				173
Huslia																				132
Hughes																				12
Alakaket																				0
Alatna																				0
Bettles																				0
District 4																				958
Tanana																				4,826
Rampart																				0
Stevens Village																				0
Birch Creek																				0
Beaver																				0
Fort Yukon																				129
Venette																				0
Chalkyitsik																				0
District 5																				4,955
Survey Totals	227	131	315	94	693	30	175	4,823	3	0	129	0	60	0	0	0	0	0	0	6,680

a Except for the Innoko River drainage.

b Except for the Koyukuk River drainage.

c Except for the Chandalar and Porcupine River drainages.

d Except for the Black River drainage.

Table 11. Estimated or reported subsistence harvest of pink salmon and other select miscellaneous fish species by surveyed villages, Yukon Area, 2000.

Community	Estimated Subsistence Harvest with Corresponding Confidence Intervals (CI) (Expanded to Estimate Survey Village Harvest)										Reported Harvest of Miscellaneous Fish Species, (Not Expanded)								
	Total Households	Households Contacted	Pink Salmon		Large Whitefish		Small Whitefish		Pike		Sheefish		Burbot	Lamprey	Tomcod	Grayling	Sucker	Arctic Char	Blackfish
			Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)							
Hooper Bay	218	47	902	437	193	300	4,566	3,103	21	23	4	5	0	0	724	0	2	0	1,000
Scammon Bay	89	24	96	103	0	0	2,766	1,133	1,017	1,078	0	0	10	0	2,268	0	0	20	22,450
Coastal District	307	71	998	449	193	300	7,332	3,303	1,038	1,078	4	5	10	0	3,012	0	2	20	23,450
Sheldon's Point	38	29	0	0	115	76	94	38	0	0	78	68	0	0	0	0	0	0	0
Alakanuk	152	32	38	42	0	0	275	488	0	0	111	74	10	0	0	0	0	0	0
Emmonak	198	83	0	0	959	428	1,081	825	259	239	1,039	392	124	100	595	0	0	1	2,960
Kotlik	94	30	263	306	1,061	676	158	75	255	247	552	344	52	0	300	0	0	0	3,150
District 1	482	174	301	309	2,135	804	1,608	962	514	344	1,780	531	186	100	895	0	0	1	6,110
Mountain Village	170	59	61	52	706	441	658	624	297	269	414	278	115	0	0	24	0	1	0
Pikas Point	27	22	114	80	1,160	418	0	0	108	58	524	250	161	0	0	0	0	0	0
St. Mary's	148	51	54	78	540	364	1,318	1,371	2,997	5,290	761	869	121	0	0	0	0	3	0
Pilot Station	111	55	6	6	1,696	530	1,846	1,087	304	131	264	108	149	485	0	20	0	4	20,600
Marshall	86	30	0	0	2,647	1,499	3,090	3,748	695	673	593	234	1,205	0	0	0	0	0	8,750
District 2	542	217	235	124	6,749	1,740	6,912	4,183	4,401	5,342	2,556	981	1,751	485	0	44	0	23	29,350
Russian Mission	68	21	8	0	616	477	415	351	1,491	1,625	366	392	42	200	0	0	0	0	0
Holy Cross	62	26	20	0	0	0	188	132	0	0	36	4	5	0	0	0	0	5	0
Shageluk	40	26	0	0	0	0	613	488	10	14	0	0	0	0	0	0	0	0	0
District 3	170	73	28	0	616	477	1,216	615	1,501	1,625	402	392	47	200	0	0	0	5	0
Anvik	41	16	30	24	0	0	42	32	35	33	33	37	0	0	0	0	0	0	0
Grayling	48	23	0	0	63	45	539	296	12	8	498	234	0	0	0	2	0	0	0
Katlay	62	25	0	0	0	0	488	594	129	89	136	134	0	0	0	0	0	0	0
Nulato	101	30	0	0	0	0	422	371	0	0	0	0	0	0	0	0	0	0	0
Koyukuk	42	10	0	0	0	0	420	119	0	0	113	127	0	0	0	0	0	0	0
Galena	216	58	0	0	1,476	1,188	783	571	198	108	221	132	108	0	0	27	5	0	0
Ruby	77	26	1	0	150	0	537	31	25	8	38	3	26	0	0	22	10	0	0
Huslia	96	15	0	0	179	230	120	192	202	189	18	16	10	1	0	29	0	0	0
Hughes	24	17	0	0	4,257	1,678	1,501	1,697	57	17	105	27	1	0	0	40	0	0	0
Alakaket	62	21	0	0	1,490	728	1,100	0	131	14	178	140	10	0	0	24	351	0	0
Alatna	7	7	0	0	102	0	0	0	10	0	0	0	0	0	0	25	0	0	0
Bettles	30	19	0	0	17	21	0	0	206	191	17	21	0	0	0	67	0	22	0
District 4	806	267	31	24	7,734	2,194	5,952	1,959	1,005	306	1,357	359	155	1	0	236	366	22	0
Tanana	121	44	0	0	1,441	1,468	1,910	1,491	28	30	351	250	30	0	0	5	0	0	0
Rampart	28	15	0	0	270	235	0	0	4	4	21	27	0	0	0	20	0	0	0
Stevens Village	42	16	0	0	20	0	0	0	1	1	0	0	0	0	0	0	0	0	0
Birch Creek	15	12	0	0	131	53	0	0	80	41	84	67	0	0	0	0	0	0	0
Beaver	37	23	0	0	0	0	3	3	3	4	0	0	0	0	0	1	0	0	0
Fort Yukon	169	26	0	0	64	59	835	965	549	458	26	24	20	0	0	20	0	0	0
Veneta	60	14	0	0	0	0	171	216	30	34	0	0	0	0	0	30	0	0	0
Chalkyitsik	41	12	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0
District 6	513	162	0	0	1,926	1,489	2,919	1,789	715	463	482	262	50	0	0	76	0	0	0
Survey Totals	2,820	964	1,593	559	19,353	3,320	25,939	8,063	9,174	5,724	6,581	1,263	2,199	786	3,907	356	368	71	58,910

a Large whitefish are considered those 4 pounds or larger and small whitefish are less than 4 pounds

b The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 12. Estimated number of salmon used for subsistence purposes and corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2000.

Community	Total Households	Households Contacted ^a	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
			Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)
Hooper Bay	218	45	597	499	6,710	2,520	49	86	235	234
Scammon Bay	89	22	379	121	4,038	1,489	11	18	4	6
Coastal District	307	67	976	513	10,748	2,927	60	87	239	234
Sheldon's Point	38	27	798	471	3,413	1,600	107	98	0	0
Alakanuk	152	30	1,221	706	6,770	2,625	782	852	426	503
Emmonak	198	82	2,331	559	10,291	1,975	445	366	54	34
Kotlik	94	30	1,426	913	8,233	4,205	1,691	1,780	33	23
District 1	482	169	5,776	1,366	28,707	5,571	3,025	2,009	513	505
Mountain Village	170	59	1,761	485	7,651	1,718	108	82	83	68
Pitkas Point	27	22	766	199	1,894	348	5	4	139	84
St. Mary's	148	49	2,106	487	8,594	2,372	262	241	173	61
Pilot Station	111	54	2,398	560	4,929	1,032	21	26	18	15
Marshall	86	30	2,259	659	3,060	849	0	0	7	6
District 2	542	214	9,290	1,123	26,128	3,238	396	256	420	125
Russian Mission	68	21	1,898	700	1,519	562	37	28	24	21
Holy Cross	62	23	1,261	503	607	301	589	395	70	0
Shageluk	40	25	689	311	1,731	1,383	38	57	14	15
District 3	170	69	3,848	917	3,857	1,523	664	400	108	26
Anvik	41	14	318	75	1,198	714	214	123	153	170
Grayling	48	23	873	270	483	263	284	266	372	465
Kaitag	62	25	1,186	442	133	73	0	0	7	12
Nulato	101	27	1,186	502	418	369	0	0	84	60
Koyukuk	42	9	211	73	204	31	239	170	138	37
Galena	216	56	1,009	376	842	513	579	404	76	49
Ruby	77	25	1,852	1,116	1,865	1,486	64	0	173	0
Huslia	96	15	552	450	715	1,270	35	64	132	177
Hughes	24	17	64	26	1,079	187	157	124	12	0
Aliakaket	62	20	77	17	1,653	103	45	72	0	0
Alatna	7	7	9	0	0	0	17	0	0	0
Bettles	30	17	3	2	0	0	2	2	0	0
District 4	806	255	7,340	1,457	8,590	2,203	1,636	550	1,147	533
Tanana	121	42	3,710	1,843	3,616	1,694	7,426	5,279	5,448	4,140
Rampart	28	14	612	332	44	56	49	29	0	0
Stevens Village	42	16	491	304	50	0	0	0	0	0
Birch Creek	15	11	65	38	0	0	12	8	0	0
Beaver	37	23	252	59	7	5	0	0	0	0
Fort Yukon	169	25	1,058	826	0	0	332	236	138	143
Venetie	60	14	142	132	0	0	195	125	0	0
Chalkyitsik	41	11	7	12	134	85	0	0	0	0
District 5	513	156	6,337	2,074	3,851	1,697	8,014	5,285	5,586	4,142
Survey Totals	2,820	930	33,567	3,264	81,881	7,755	13,795	5,701	8,013	4,215

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 13. Estimated number of salmon retained from commercial harvests for subsistence use (commercial-related) and corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2000.

Community	Total Households	Households Contacted ^a	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
			Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)
Hooper Bay	218	47	0	0	0	0	0	0	0	0
Scammon Bay	89	24	0	0	0	0	0	0	0	0
Coastal District	307	71	0	0	0	0	0	0	0	0
Sheldon's Point	38	29	17	0	36	30	0	0	0	0
Alakanuk	152	32	0	0	7	9	0	0	0	0
Emmonak	198	83	77	67	282	346	0	0	0	0
Kotlik	94	30	38	61	277	123	0	0	0	0
District 1	482	174	132	91	601	368	0	0	0	0
Mountain Village	170	59	0	0	36	60	0	0	0	0
Pitkas Point	27	22	0	0	0	0	0	0	0	0
St. Mary's	148	52	17	28	42	71	0	0	0	0
Pilot Station	111	55	10	8	0	0	0	0	0	0
Marshall	86	30	0	0	22	38	0	0	0	0
District 2	542	218	27	29	100	100	0	0	0	0
Russian Mission	68	21	0	0	0	0	0	0	0	0
Holy Cross	62	26	0	0	0	0	0	0	0	0
Shageluk	40	26	0	0	0	0	0	0	0	0
District 3	170	73	0	0	0	0	0	0	0	0
Anvik	41	16	0	0	0	0	0	0	0	0
Grayling	48	23	0	0	0	0	0	0	0	0
Kaltag	62	25	0	0	0	0	0	0	0	0
Nulato	101	30	0	0	0	0	0	0	0	0
Koyukuk	42	10	0	0	0	0	0	0	0	0
Galena	216	58	0	0	0	0	0	0	0	0
Ruby	77	26	0	0	0	0	0	0	0	0
Huslia	96	15	0	0	0	0	0	0	0	0
Hughes	24	17	0	0	0	0	0	0	0	0
Allakaket	62	21	0	0	0	0	0	0	0	0
Alatna	7	7	0	0	0	0	0	0	0	0
Bettles	30	19	0	0	0	0	0	0	0	0
District 4	806	267	0	0	0	0	0	0	0	0
Tanana	121	44	0	0	0	0	0	0	0	0
Rampart	28	15	0	0	0	0	0	0	0	0
Stevens Village	42	16	0	0	0	0	0	0	0	0
Birch Creek	15	12	0	0	0	0	0	0	0	0
Beaver	37	23	0	0	0	0	0	0	0	0
Fort Yukon	169	26	0	0	0	0	0	0	0	0
Venetie	60	14	0	0	0	0	0	0	0	0
Chalkyitsik	41	12	0	0	0	0	0	0	0	0
District 5	513	162	0	0	0	0	0	0	0	0
Survey Totals	2,820	965	159	96	701	382	0	0	0	0

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 14. Estimated number of households with dogs, number of households that feed fish to dogs, numbers of dogs, and corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2000.

Community	Total Households	Households Contacted	Number of Households with Dogs		Number of Households that Feed Fish to Dogs		Number of Dogs	
			Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)
Hooper Bay	218	47	142	57	28	53	269	176
Scammon Bay	89	23	73	10	0	0	182	65
Coastal District	307	70	215	57	28	53	451	187
Sheldon's Point	38	29	26	5	0	0	57	15
Alakanuk	152	32	57	20	8	9	93	34
Emmonak	198	84	105	19	4	4	207	79
Kotlik	94	30	59	15	12	10	195	129
District 1	482	175	247	32	25	14	552	156
Mountain Village	170	58	78	23	4	3	204	84
Pitkas Point	27	21	18	2	2	1	61	21
St. Mary's	148	52	82	30	1	0	170	66
Pilot Station	111	55	67	12	0	0	165	57
Marshall	86	30	62	12	0	0	341	172
District 2	542	216	307	41	7	3	941	212
Russian Mission	68	20	52	18	0	0	190	105
Holy Cross	62	26	29	11	1	0	48	14
Shageluk	40	26	30	5	4	2	136	36
District 3	170	72	111	22	5	2	374	112
Anvik	41	13	17	9	4	5	101	66
Grayling	48	23	27	7	0	0	51	14
Kaltag	62	25	30	11	0	0	68	33
Nulato	101	30	64	24	0	0	197	114
Koyukuk	42	10	19	8	3	2	84	43
Galena	216	45	130	42	3	3	265	83
Ruby	77	24	36	25	6	6	187	117
Huslia	96	15	51	30	7	13	88	67
Hughes	24	16	14	3	1	0	94	33
Allakaket	62	21	31	18	3	0	84	20
Alatna	7	7	5	0	0	0	6	0
Bettles	30	19	17	5	2	3	93	60
District 4	806	248	441	68	29	16	1,318	225
Tanana	121	44	59	17	12	2	359	82
Rampart	28	15	16	4	0	0	20	5
Stevens Village	42	16	15	9	0	0	18	10
Birch Creek	15	12	6	2	0	0	15	6
Beaver	37	23	19	3	4	3	30	7
Fort Yukon	169	27	73	46	24	34	218	90
Venetie	60	14	34	22	3	2	100	71
Chalkyitsik	41	12	14	12	4	2	51	24
District 5	513	163	236	56	47	34	811	144
Survey Totals	2,820	944	1,557	119	140	67	4,447	434

Table 15. Estimated number of salmon retained for dog food from subsistence harvests with corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2000. a

Community	Total Households	Households Contacted b	Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Number of Subsistence Salmon Retained for Dog Food
			Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	
Hooper Bay	218	47	0	0	0	0	0	0	0
Scammon Bay	89	24	0	0	0	0	0	0	0
Coastal District	307	71	0	0	0	0	0	0	0
Sheldon's Point	38	29	0	0	0	0	0	0	0
Alakanuk	152	32	0	0	0	0	0	0	0
Emmonak	198	84	223	149	0	0	0	0	223
Kotlik	94	30	1,017	1,525	741	1,226	0	0	1,758
District 1	482	175	1,240	1,533	741	1,226	0	0	1,981
Mountain Village	170	59	27	35	0	0	0	0	27
Pitkas Point	27	22	240	192	0	0	0	0	240
St. Mary's	148	52	200	0	30	0	30	0	260
Pilot Station	111	55	0	0	0	0	0	0	0
Marshall	86	30	0	0	0	0	0	0	0
District 2	542	218	467	195	30	0	30	0	527
Russian Mission	68	21	0	0	0	0	0	0	0
Holy Cross	62	26	70	0	150	0	70	0	290
Shageluk	40	26	349	396	0	0	0	0	349
District 3	170	73	419	396	150	0	70	0	639
Anvik	41	16	451	324	71	57	0	0	522
Grayling	48	23	0	0	0	0	0	0	0
Kaitag	62	25	0	0	0	0	0	0	0
Nulato	101	30	0	0	0	0	0	0	0
Koyukuk	42	10	0	0	218	170	138	37	356
Galena	216	58	315	356	443	372	18	20	776
Ruby	77	25	541	0	64	0	173	0	778
Huslia	96	15	560	1,016	0	0	0	0	560
Hughes	24	17	600	0	50	0	0	0	650
Allakaket	62	21	1,770	0	0	0	0	0	1,770
Alatna	7	7	0	0	0	0	0	0	0
Bettles	30	19	0	0	0	0	0	0	0
District 4	806	264	4,237	1,125	846	413	329	43	5,412
Tanana	121	44	1,085	726	5,617	4,320	1,791	1,049	8,493
Rampart	28	15	0	0	0	0	0	0	0
Stevens Village	42	16	0	0	0	0	0	0	0
Birch Creek	15	12	0	0	0	0	0	0	0
Beaver	37	23	3	2	0	0	0	0	3
Fort Yukon	169	26	0	0	225	255	0	0	225
Venetie	60	14	0	0	130	34	0	0	130
Chalkyitsik	41	11	175	85	0	0	0	0	175
District 5	513	161	1,263	731	5,972	4,328	1,791	1,049	9,025
Survey Totals	2,820	964	7,626	2,084	7,739	4,517	2,220	1,050	17,584

a No commercial (commercial-related) harvests were estimated to be retained for dog food as commercial opportunity was extremely limited in 2000.

b The number of households contacted per species may vary. The number of households contacted indicated is the greatest number of households contacted for a given survey question.

Table 16. Household responses characterizing quality of subsistence salmon fishing, Yukon Area, 2000.

Community	Number of Households Responding to Needs Met	Percent of Households that Responded Needs were Not Met	Number of Households Responding to Quality of Run	Percent of Households Reporting Quality of Subsistence Fishing							
				Chinook		Summer Chum		Fall Chum		Coho	
				Very Good or Average	Very Poor	Very Good or Average	Very Poor	Very Good or Average	Very Poor	Very Good or Average	Very Poor
Hooper Bay	44	73	41	5	95	46	54	50	50	23	77
Scammon Bay	32	59	31	26	74	47	53	0	100	0	100
Coastal District	76	67	72	14	86	46	54	17	83	19	81
Sheldon's Point	27	56	27	30	70	28	72	0	0	0	0
Alakanuk	32	50	28	36	64	36	64	100	0	100	0
Emmonak	70	36	57	42	58	52	48	7	93	9	91
Kotlik	30	53	20	35	65	70	30	45	55	50	50
District 1	159	45	132	37	63	47	53	20	80	19	81
Mountain Village	59	39	38	66	34	58	42	0	0	0	0
Pitkas Point	22	68	11	45	55	73	27	0	100	0	0
St. Mary's	52	42	46	43	57	56	44	0	100	0	100
Pilot Station	53	38	24	38	63	39	61	0	0	0	0
Marshall	30	43	18	50	50	61	39	0	0	0	0
District 2	216	43	137	50	50	56	44	0	100	0	100
Russian Mission	21	29	16	69	31	64	36	0	100	0	100
Holy Cross	24	71	23	4	96	5	95	0	100	0	100
Shageluk	25	84	22	9	91	10	90	0	0	0	0
District 3	70	63	61	23	77	21	79	0	100	0	100
Anvik	15	93	15	0	100	0	100	0	0	0	0
Grayling	24	100	24	8	92	8	92	0	100	0	0
Kaltag	25	88	24	0	100	0	100	0	0	0	0
Nulato	27	96	28	0	100	0	100	0	100	0	100
Koyukuk	9	89	10	0	100	0	100	0	100	0	100
Galena	51	55	11	27	73	33	67	33	67	0	0
Ruby	22	86	22	14	86	5	95	0	100	0	100
Huslia	14	71	1	100	0	100	0	0	0	0	0
Hughes	17	76	1	0	100	0	100	0	0	0	0
Allakaket	21	76	4	0	100	0	100	0	0	0	0
Alatna	6	67	1	100	0	0	0	0	0	0	0
Bettles	17	71	2	50	50	50	50	0	0	0	0
District 4	248	79	143	8	92	5	95	11	89	0	100
Tanana	41	85	27	11	89	12	88	33	67	67	33
Rampart	14	43	6	50	50	50	50	100	0	100	0
Stevens Village	15	73	0	0	0	0	0	0	0	0	0
Birch Creek	11	64	2	50	50	0	0	0	0	0	0
Beaver	23	87	22	0	100	0	100	0	0	0	0
Fort Yukon	28	93	23	9	91	9	91	0	0	0	0
Venetie	18	100	16	0	100	0	100	0	100	0	100
Chalkyitsik	13	100	12	0	100	0	100	0	0	0	0
District 5	163	83	108	8	92	6	94	40	60	60	40
Survey Totals	932	64	653	25	75	31	69	18	82	20	80

Table 17. Reported subsistence and personal use fish harvested under the authority of a permit, listed by permit area, Yukon Area, 2000. a

Permit Fishing Area	Permit b			Percent Returned	Number of Permits Returned that Fished	Reported Harvest									
	Type	Issued	Returned			Chinook	Summer Chum	Fall Chum	Coho	Whitefish	Sheefish	Burbot	Pike	Suckers	Grayling
Subsistence Use															
Yukon River near Haul Road Bridge	SY	56	52	93%	33	1,607	324	8	32	23	11	0	3	0	0
Yukon River near c Circle and Eagle	SE	121	118	98%	47	1,806	233	33	0	320	10	9	42	383	477
Tanana River Subdistrict 6A	SA	20	20	100%	10	80	240	0	2,180	27	5	6	38	0	0
Tanana River Subdistrict 6B	SB	81	79	98%	33	903	869	208	2,706	1,118	2	36	60	203	8
Tanana River Upstream of Subdistrict 6C	SU	41	36	88%	16	0	2	100	0	1,542	0	32	165	89	30
Kantishna River Subdistrict 6A	SK	4	4	100%	2	0	0	0	261	12	0	0	27	3	0
Tolovana River Pike Subdistrict 6B	ST	34	29	85%	13	0	0	2	3	163	57	12	352	61	6
Subsistence Permit Subtotals		357	338	95%	154	4,396	1,668	351	5,182	3,205	85	95	687	739	521
Personal Use															
Tanana River Subdistrict 6C	PC	70	69	99%	16	75	30	1	0	0	0	0	0	0	0
Tanana River Whitefish Upstream of Subdistrict 6C	PW	3	2	67%	0	0	0	0	0	0	0	0	0	0	0
Personal Use Permit Subtotals		73	71	97%	16	75	30	1	0	0	0	0	0	0	0
Permit Totals		430 d	409	95%	170 e	4,471	1,698	352	5,182	3,205	85	95	687	739	521

a Includes 2000 permit information received as of May 23, 2001.

b Includes 37 households that were issued permits for more than one area, includes 23 Minto households who were issued Tolovana River drainage (ST) pike permits.

c Includes one household that was issued a subsistence permit for whitefish and sucker in Birch Creek, the permit was returned and was not utilized.

d Includes one household that fished in two different permit areas.

Table 18. Reported subsistence and personal use fish harvested under the authority of a permit, listed by fishery, by community of residence, and by drainage, Yukon Area, 2000. ^a

Community	Harvest by Drainage	Permits			Percent Returned	Number of Permits Returned that Fished	Reported Harvest									
		Issued	Returned	Returned			Chinook	Summer Chum	Fall Chum	Coho	Whitefish	Sheefish	Burbot	Pike	Sucker	Grayling
Subsistence Use																
Central	Yukon River	11	11	100%	2	26	1	0	0	0	0	0	0	0	0	0
	Yukon River	29	27	93%	8	627	109	0	0	45	4	0	1	0	0	0
Circle	Yukon River	62	61	98%	32	1,087	121	32	0	254	2	4	41	375	477	0
	Yukon River	51	47	92%	30	1,342	275	8	2	44	15	5	2	8	0	0
FNSB b	Tolovana River	4	4	100%	1	0	0	0	0	0	0	0	1	0	6	0
	Tanana River	17	16	94%	9	360	90	0	0	144	1	7	26	0	0	0
	Kantishna River	1	1	100%	1	0	0	0	0	0	0	0	27	0	0	0
	FNSB Subtotal	73	68	93%	41	1,702	365	8	2	188	16	12	56	8	6	0
	Tanana River	6	6	100%	2	0	0	200	1,200	700	0	20	10	0	0	0
Healy	Kantishna River	1	1	100%	0	0	0	0	0	0	0	0	0	0	0	0
	Healy Subtotal	7	7	100%	2	0	0	200	1,200	700	0	20	10	0	0	0
Manley	Yukon River	1	1	100%	1	165	11	0	0	0	0	0	0	0	0	0
	Tanana River	13	13	100%	6	58	240	0	2,180	24	4	6	12	0	0	0
Manley Subtotal	Manley Subtotal	14	14	100%	7	223	251	0	2,180	24	4	6	12	0	0	0
	Yukon River	2	2	100%	1	5	0	0	0	0	0	0	0	0	0	0
Minto	Tolovana River	30	25	83%	12	0	0	2	3	163	57	12	351	61	0	0
	Tanana River	31	30	97%	6	0	3	0	0	40	0	0	40	10	2	0
Minto Subtotal	Minto Subtotal	63	57	90%	19	5	3	2	3	203	57	12	391	71	2	0
	Yukon River	2	2	100%	1	30	40	0	30	0	0	0	0	0	0	0
Nenana	Tanana River	33	33	100%	19	541	775	8	1,506	370	2	9	10	193	6	0
	Kantishna River	2	2	0%	1	0	0	0	261	12	0	0	0	3	0	0
Nenana Subtotal	Nenana Subtotal	37	37	100%	21	571	815	8	1,797	382	2	9	10	196	6	0
	Yukon River	4	4	100%	3	126	0	0	0	0	0	0	1	0	0	0
Stevens Village	Yukon River	13	13	100%	2	5	0	1	0	0	0	0	0	0	0	0
	Tanana River	36	32	89%	13	0	2	100	0	1,409	0	32	114	89	30	0
Upper Tanana Villages (UTV) c	UTV Subtotal	49	45	92%	15	5	2	101	0	1,409	0	32	114	89	30	0
	Yukon River	2	2	100%	0	0	0	0	0	0	0	0	0	0	0	0
Other d	Tanana River	6	5	83%	4	24	1	0	0	0	0	0	51	0	0	0
	Other Subtotal	8	7	88%	4	24	1	0	0	0	0	0	51	0	0	0
Subsistence Permit Subtotals		357	338	95%	154	4,396	1,668	351	5,182	3,205	85	95	687	739	521	0
Personal Use																
Delta Junction	Tanana River	1	1	100%	0	0	0	0	0	0	0	0	0	0	0	0
	FNSB	66	64	97%	14	65	30	0	0	0	0	0	0	0	0	0
Other e	Tanana River	6	6	100%	2	10	0	1	0	0	0	0	0	0	0	0
	Personal Use Permit Subtotals	73	71	97%	16	75	30	1	0	0	0	0	0	0	0	0
Permit Totals		430 f	409	95%	170 g	4,471	1,698	352	5,182	3,205	85	95	687	739	521	0

^a Includes 2000 permit information received as of May 23, 2001.
^b Fairbanks North Star Borough (FNSB) includes residents from the communities of College, Eielson Air Force Base, Ester, Fairbanks, Ft. Wainwright, North Pole, and Salcha.
^c Upper Tanana Villages include residents from the communities of Delta Junction, Dot Lake, Northway, Tanacross, and Tok.
^d Other subsistence permits include residents from the communities of Anchorage, Chugiak, Denali, Gakona, Manley, Siana, Tanana, and Wasilla.
^e Other personal use permits include residents from the communities of Alakaket, Central, Nenana, and Juneau.
^f Includes 37 households that were issued permits for more than one area, including 23 Minto households who were issued Tolovana River drainage (ST) pike permits.
^g Includes one household that fished in two different permit areas.

Table 19. Household and dog information reported by subsistence and personal use permits issued and returned, listed by fishery and by community of residence, Yukon Area, 2000. a

Community	Permit Information b				Reported Household Information c (Based on Permits Issued)					Whole Salmon Fed to Dogs (Based on Permits Returned)	
	Permits		Percent Returned	Numbers of Permits Returned that Fished	Number of People	Number of Fishermen	Number of Households with Dogs	Number of Dogs	Households Indicating Feeding Whole Salmon to Dogs	Number of Households Who Put Whole Salmon up for Dogs	Number of Whole Salmon Fed to Dogs
	Issued	Returned									
Subsistence Use											
Central	11	11	100%	2	22	16	9	30	4	2	94
Circle	29	27	93%	8	89	48	25	93	19	0	0
Eagle	63	62	98%	32	146	101	49	254	29	6	149
FNSB d	73	68	93%	41	225	139	48	477	20	4	74
Healy	7	7	100%	2	24	15	6	151	6	0	0
Manley	14	14	100%	7	33	22	12	271	12	2	2,281
Minto	63	57	90%	19	136	67	26	131	17	1	30
Nenana	37	37	100%	21	110	71	31	379	24	6	671
Stevens Village	4	4	100%	3	16	6	4	11	2	0	0
Upper Tanana Villages e	42	38	90%	13	126	86	23	80	4	1	100
Other f	14	13	93%	6	55	43	5	18	2	0	0
Subsistence Permit Subtotal	357	338	95%	154	982	614	238	1,895	139	22	3,399
Personal Use											
FNSB d	66	64	97%	14	191	103	1	13	-	-	-
Nenana	3	3	100%	0	3	2	-	-	-	-	-
Other g	4	4	100%	2	8	5	-	-	-	-	-
Personal Use Permit Subtotal	73	71	97%	16	202	110	1	13	-	-	-
Permit Totals	430	409	95%	170 h	1,184	724	239	1,908	139	22	3,399

a Includes 2000 permit information received as of May 23, 2001.

b Includes 37 households that were issued permits for more than one area, including 23 Minto households who were issued Tolovana River drainage (ST) pike permits.

c Does not include information for those households with more than one permit.

d Fairbanks North Star Borough (FNSB) includes residents from the communities of Ester, Fairbanks, Ft. Wainwright, North Pole, and Salcha.

e Upper Tanana Villages include residents from the communities of Delta Junction, Dot Lake, Northway, Tanacross, and Tok.

f Other subsistence permits include residents from the communities of Anchorage, Chugiak, Denali, Gakona, Manley, Slana, Tanana, and Wasilla.

g Other personal use permits include residents from the communities of Allakaket, Central, Delta Junction and Juneau.

h Includes one household that fished in two different permit areas.

Table 20. Estimates of salmon provided for subsistence purposes by test fish programs, Yukon Area, 2000.

Projects by Location	Primary Distribution	Chinook	Summer Chum	Fall Chum	Coho
Big Eddy Test Set and Drift Gill Net Sites	Emmonak	799	1,198	1,157	173
Middle Mouth Test Set Gill Net Sites	Kotlik	532	1,276	1,735	767
LYTF Test Set and Drift Gillnet Sites	Alakanuk	13	25	29	9
Mountain Village Test Drift Gill Net Sites	Mountain Village	0	0	269	313
Pilot Station Test Set and Drift Gill Net Sites	Pilot Station	450	2,141	834	1,705
Marshall Test Drift Gill Net Sites	Marshall	1,024	335	0	0
Marshall Tag Deployment Drift Gill Net Sites a	Marshall	11	0	0	0
Russian Mission Tag Deployment Drift Gill Net Sites a	Russian Mission	23	0	0	0
Kaltag Test Drift Gill Net Sites	Kaltag	0	0	190	110
Subtotal b		2,852	4,975	4,214	3,077
Tanana Left (South) Bank Test Fish Wheel	Tanana	0	0	35	1,459
Nenana Test Fish and Tag Recovery Fish Wheel	Nenana	20	0	0	31
Kantishna River Tag Deployment Fishwheel	Manley	0	0	0	200
Tanana River Tag Deployment Fishwheel	Manley	0	0	0	30
Subtotal c		20	0	35	1,720
Total		2,872	4,975	4,249	4,797

a Chinook salmon Radio Telemetry Project.

b Test fish given away that were not accounted for in subsistence harvest survey or permit methods.

c Test fish given away that were accounted for in subsistence harvest survey or permit methods.

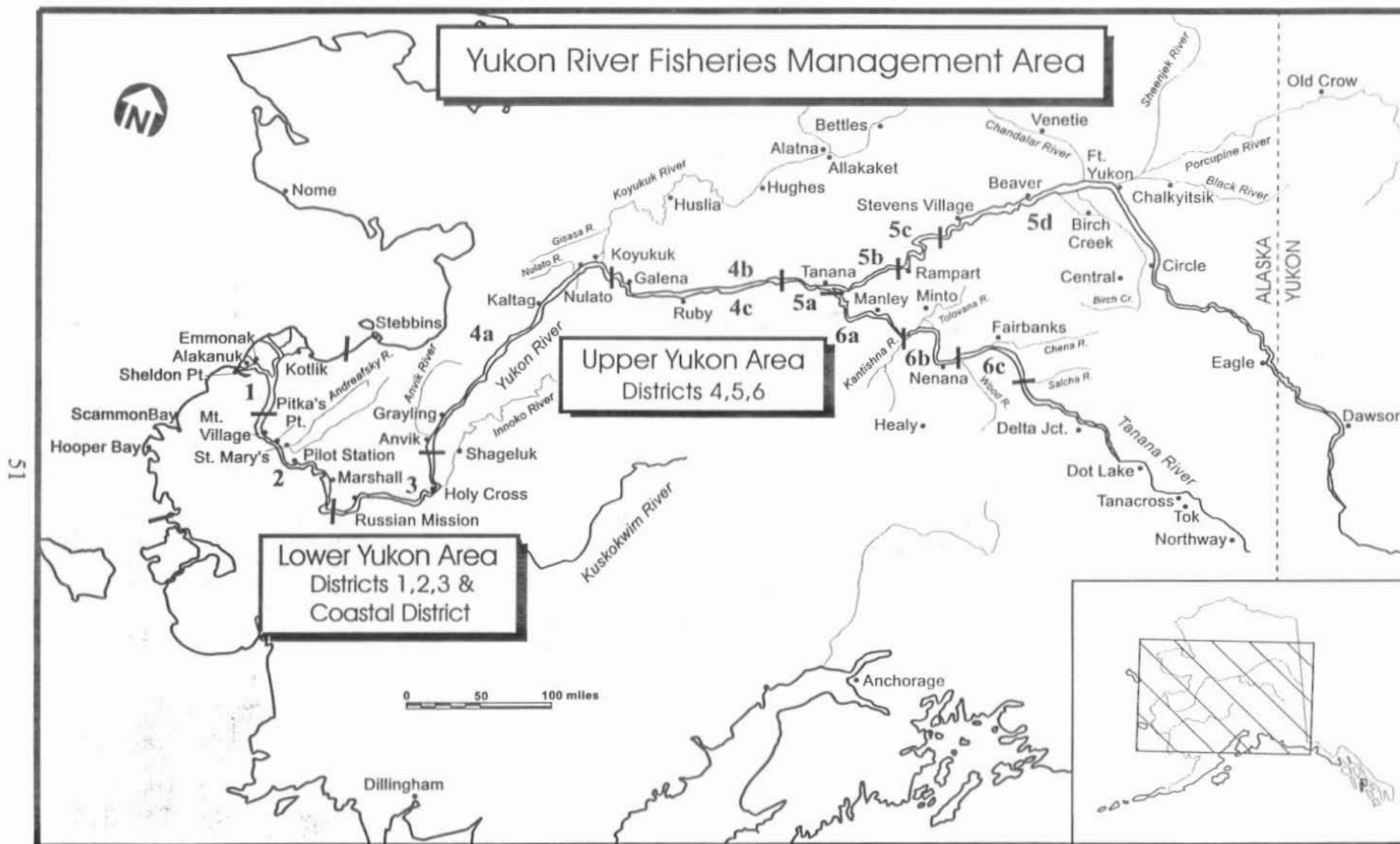


Figure 1. The Yukon Area showing communities and fishing districts, 2000.

5 AAC 99.015 JOINT BOARD NONSUBSISTENCE AREAS. (4) The Fairbanks Nonsubsistence Area is comprised of the following: within Unit 20(A) as defined by 5 AAC 92.450(20)(A) east of the Wood River drainage and south of the Rex Trail but including the upper Wood River drainage south of its confluence with Chicken Creek, within Unit 20(B) as defined by 5AAC 92.450(20)(B) the North Star Borough and that portion of the Washington Creek drainage east of the Elliot Highway, within 20(D) as defined by 5 AAC 92.450(20)(D) west of the Tanana River between its confluence's with the Johnson and Delta Rivers, west of the west bank of the Johnson River, and north and west of the Volkmar drainage, including the Goodpaster River drainage, and within Unit 25(C) as defined by 5 AAC 92.450(25)(C) the Preacher and Beaver Creek drainages.

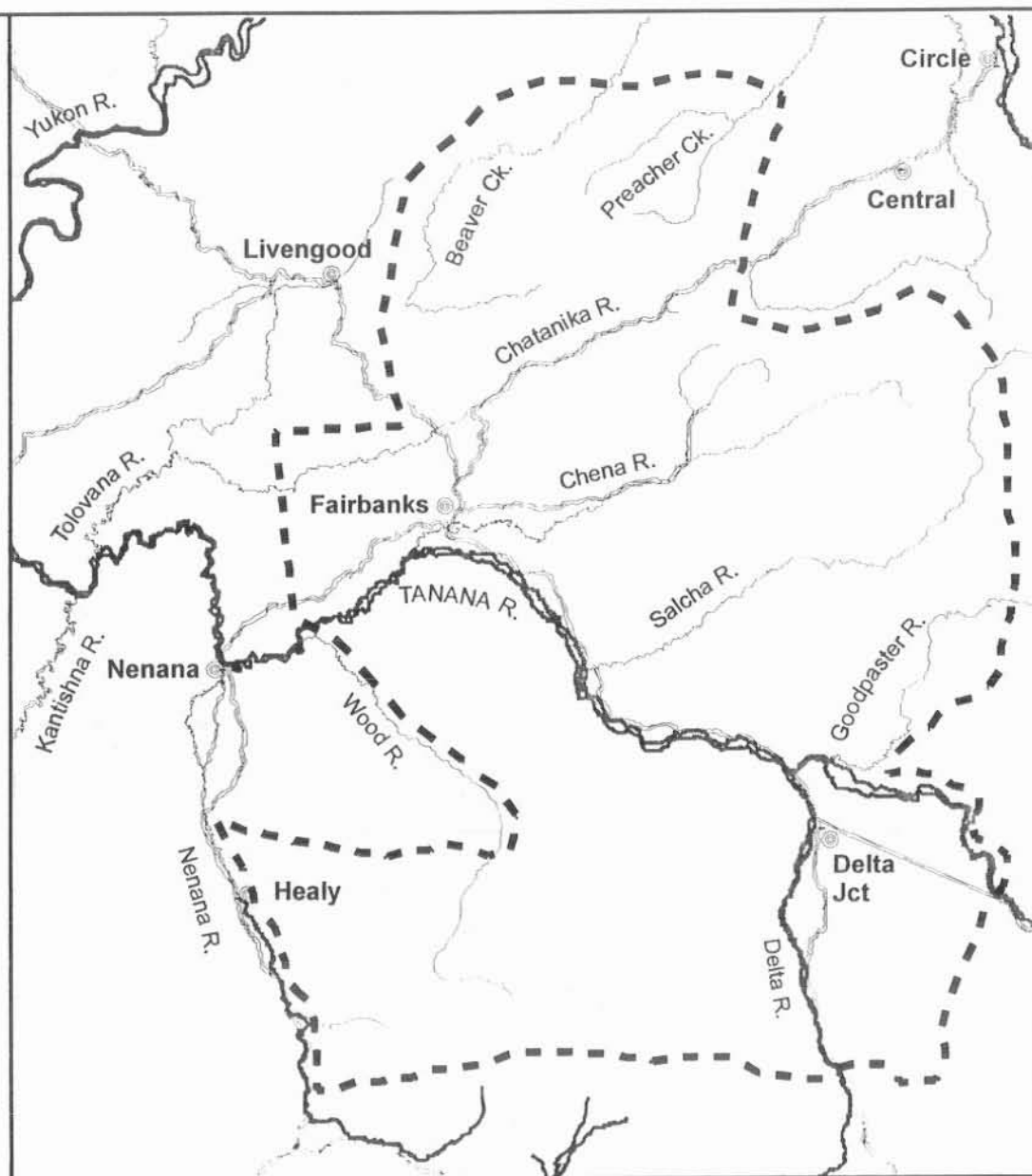
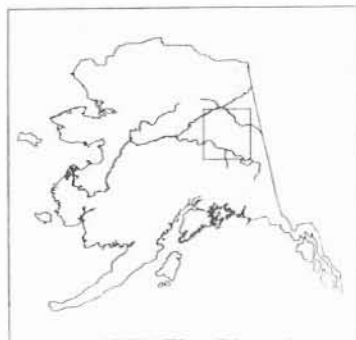


Figure 2. The Fairbanks Nonsubsistence Area, 2000.

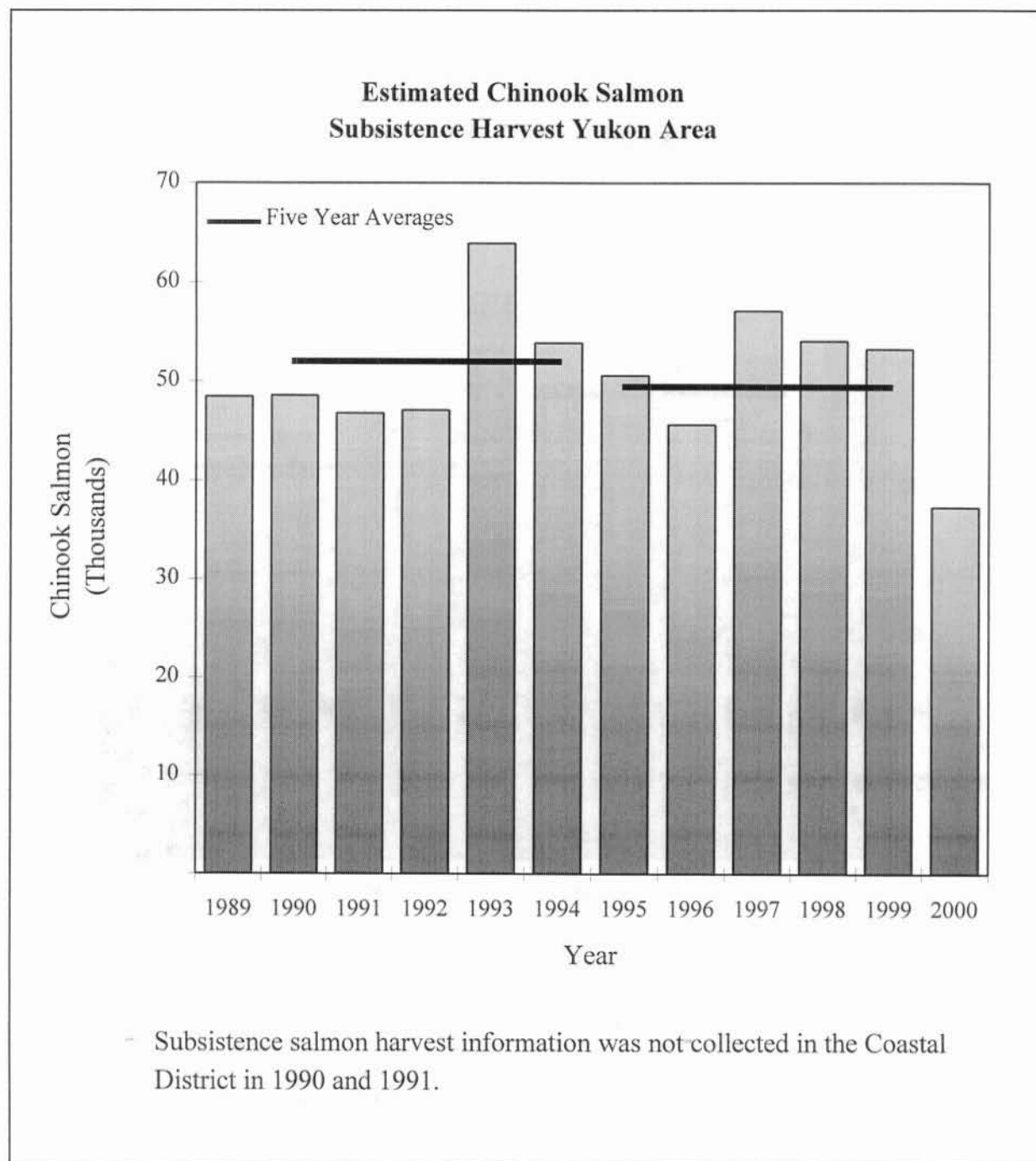
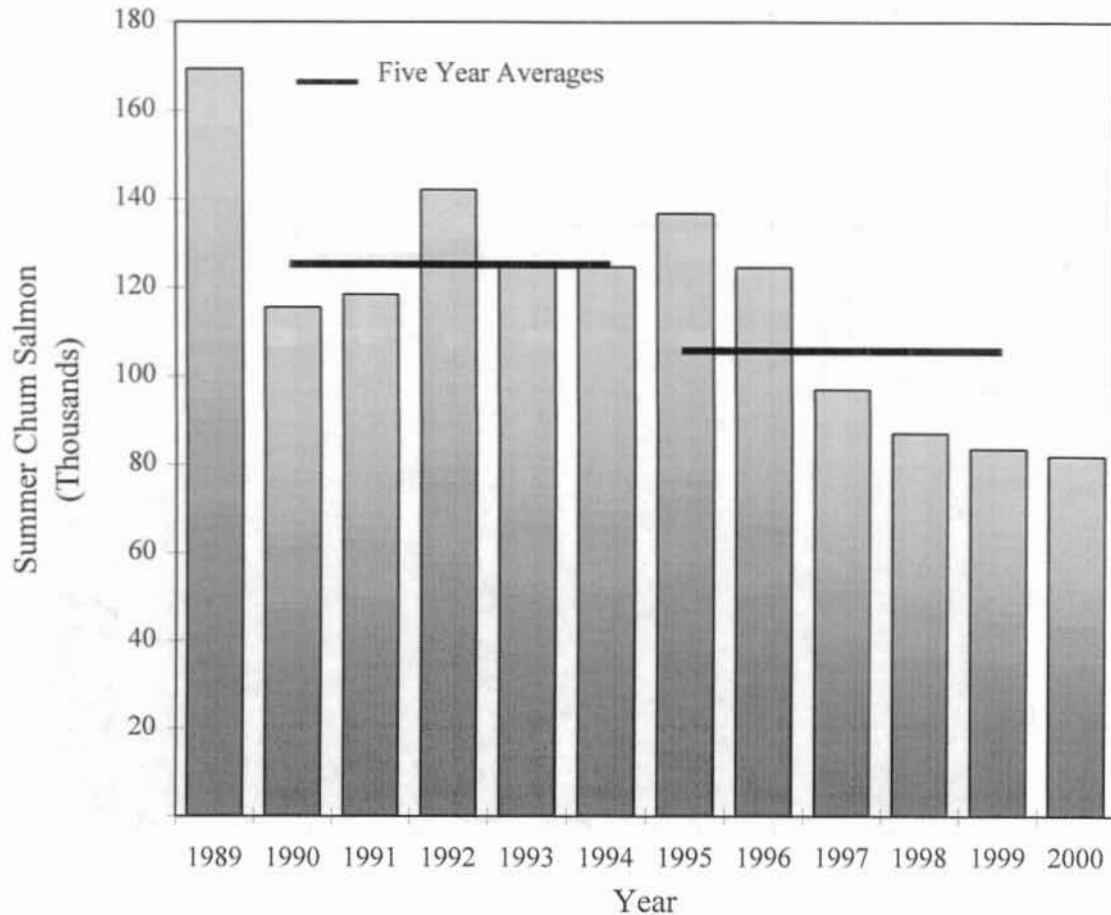


Figure 3. Estimated chinook salmon harvest in the subsistence fishery, Yukon Area, 1989 to 2000.

Estimated Summer Chum Salmon Subsistence Harvest Yukon Area

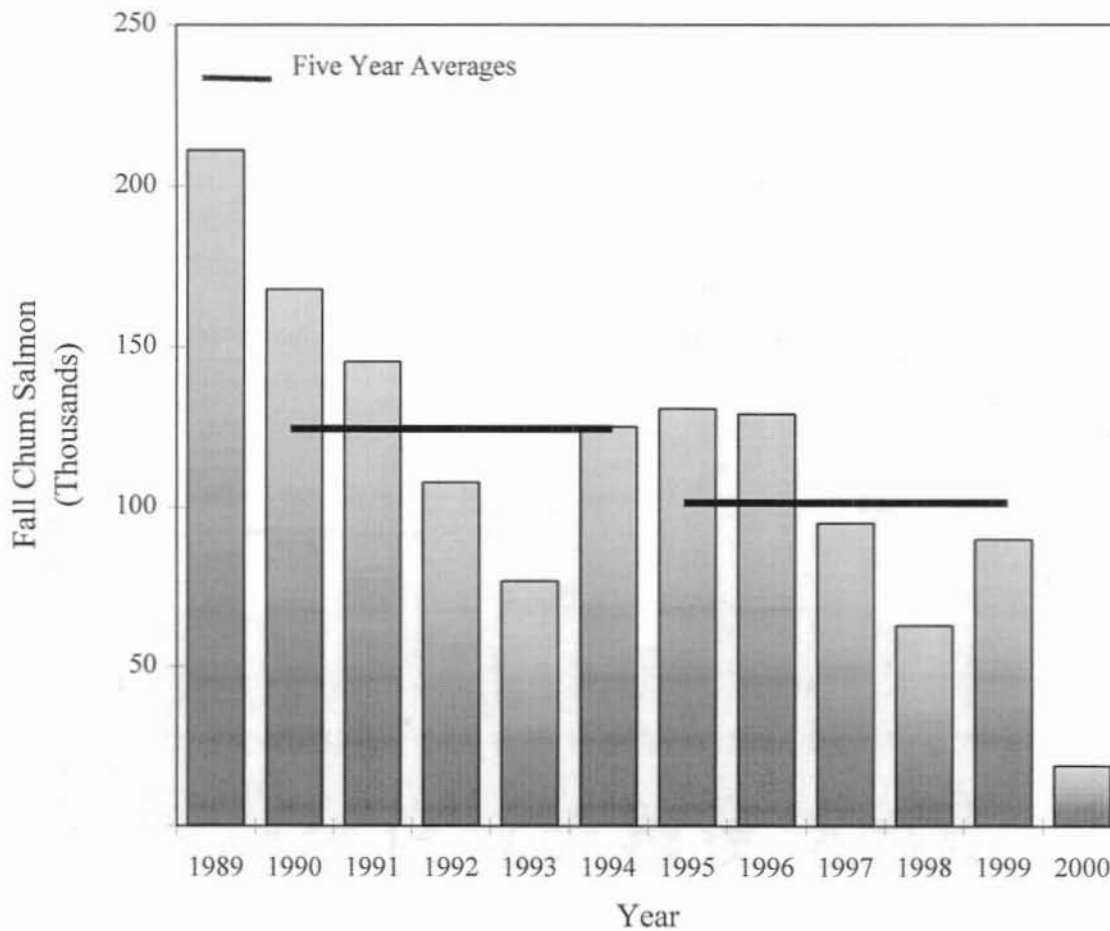


Summer chum salmon carcasses retained for subsistence use from the commercial fishery are not included.

Subsistence salmon harvest information was not collected in the Coastal District in 1990 and 1991.

Figure 4. Estimated summer chum salmon harvest in the subsistence fishery, Yukon Area, 1989 to 2000.

**Estimated Fall Chum Salmon
Subsistence Harvest Yukon Area**



Fall chum salmon carcasses retained for subsistence use from the commercial fishery are not included (most significant in 1995 and 1996).

Subsistence salmon harvest information was not collected in the Coastal District in 1990 and 1991.

Figure 5. Estimated fall chum salmon harvest in the subsistence fishery, Yukon Area, 1989 to 2000.

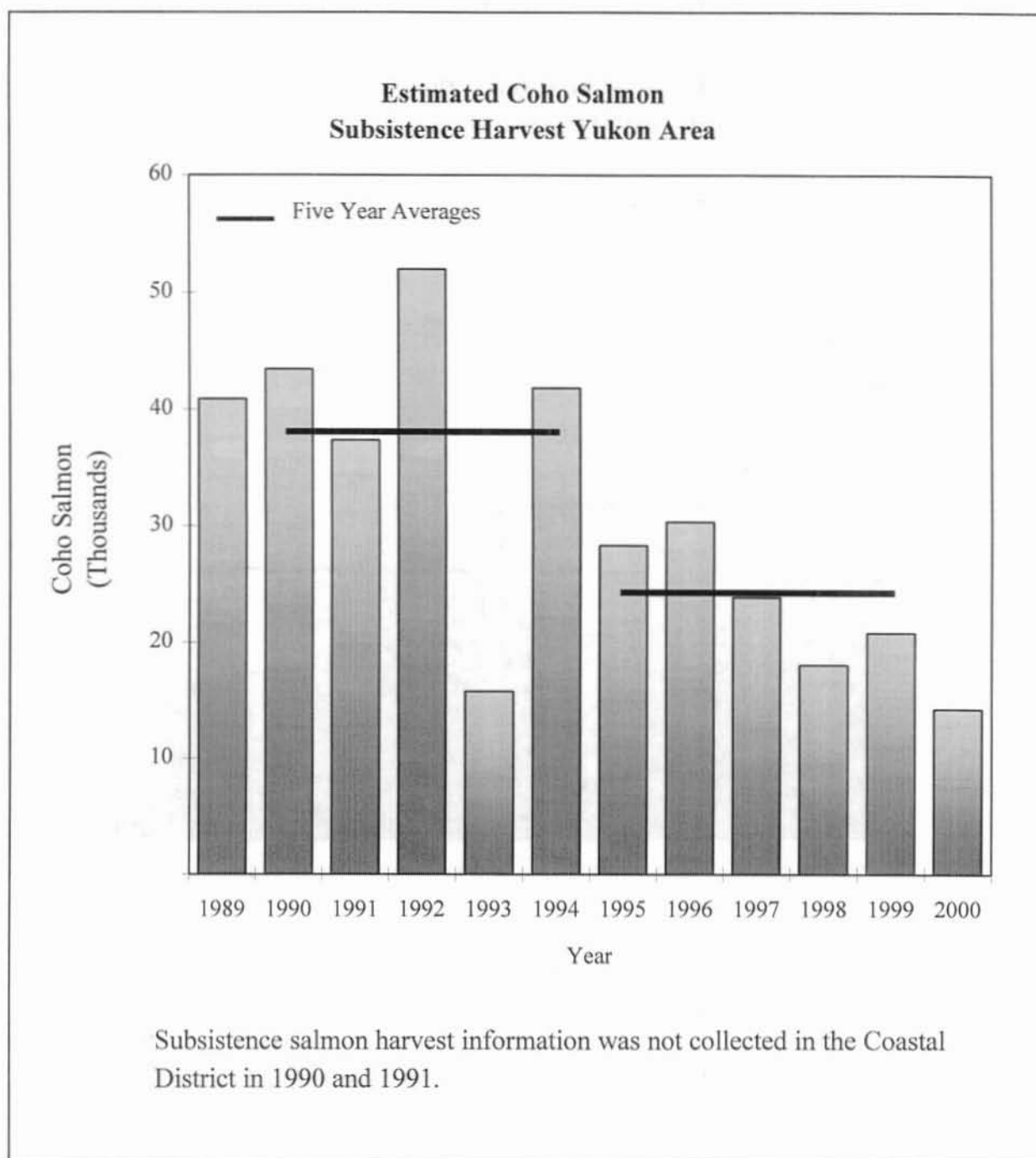


Figure 6. Estimated coho salmon harvest in the subsistence fishery, Yukon Area, 1989 to 2000.

APPENDIX A

YUKON RIVER DRAINAGE SUBSISTENCE SALMON
SURVEY AND PERMIT HARVEST FORMS

Appendix A.1. Example of the subsistence salmon harvest calendar mailed to Lower Yukon Area fishermen, 2000.

\$200 LOTTERY \$200 LOTTERY \$200 LOTTERY

Each household that returns a properly completed subsistence salmon harvest reporting calendar will get a chance to win a \$200 prize. To qualify for the lottery, the original calendar must be received at the Alaska Department of Fish and Game office in Fairbanks by November 30, 2000 with the return address label and household identification number intact. Each calendar must have the addressed household's complete subsistence harvest record for the 2000 fishing season. If no one in the household fished for subsistence salmon in 2000, the "DID NOT FISH" box on the last page must be checked. A household that completes and returns its calendar will be drawn at random to receive \$200. The drawing will be held December 1, 2000.

We would like to congratulate Mr. Patrick Tam of Emmonak who was the 1999 lottery winner.

May 2000

Dear Subsistence Fisherman:

The Yukon River drainage subsistence salmon harvest reporting calendar is provided by the Alaska Department of Fish and Game, Division of Commercial Fisheries. Please record the daily number of salmon harvested for your household on this calendar. Include salmon that were caught by your household but given to other households. Do not include fish caught by other households and given to you. Additionally, include on this calendar all salmon that were caught to feed dogs. However, do not include salmon sold in the round when commercial fishing or female salmon from which the roe was stripped and sold separately.

At the end of your subsistence salmon season, close the calendar by applying tape to the appropriately marked areas (see back), and place the self-addressed, postage-paid calendar in the mail (NO POSTAGE IS REQUIRED), or have the calendar available for pickup by our surveyor during post season surveys.



The information obtained from these calendars and the surveys is used to document the subsistence salmon harvest and needs. If you have any questions or comments, please call (907) 459-7274.


We hope you have a successful fishing season. THANK YOU.

	KEY	SPECIES	COMMON LOCAL NAMES
	Early Season	Chinook Salmon Summer Chum Salmon Pink Salmon	King, Daryaqrak, Daryukraq, Taryaqraq, Kigraq, Chuk-cho Dog, Chum, Kavlunak, Kunderkut, Turmanuk, Poke Fish, Early Chum, Iqalik, Taggmamuk Hummy, Amagayak, Chukpak
	Late Season	Fall Chum Salmon Coho Salmon	Silver, Oklq, Oklek, Dog, Late Chum, Red Chum, Okleq, Ogleq, Sches, Dalayak, Uquric, Nar'anig Chimok, Silver, Red, Redfish, Gakiyag, Kakeyak, Kakeyak, Gageyak, Crooked-Rose Fish, Jack, Oqngot, Net-lee



MAY 2000

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 King _____ Dog _____	2 King _____ Dog _____	3 King _____ Dog _____	4 King _____ Dog _____	5 King _____ Dog _____	6 King _____ Dog _____
	7 King _____ Dog _____	8 King _____ Dog _____	9 King _____ Dog _____	10 King _____ Dog _____	11 King _____ Dog _____	12 King _____ Dog _____
14 King _____ Dog _____	15 King _____ Dog _____	16 King _____ Dog _____	17 King _____ Dog _____	18 King _____ Dog _____	19 King _____ Dog _____	20 King _____ Dog _____
21 King _____ Dog _____	22 King _____ Dog _____	23 King _____ Dog _____	24 King _____ Dog _____	25 King _____ Dog _____	26 King _____ Dog _____	27 King _____ Dog _____
28 King _____ Dog _____	29 King _____ Dog _____	30 King _____ Dog _____	31 King _____ Dog _____	- LOWER YUKON - SUBSISTENCE SALMON CALENDAR		

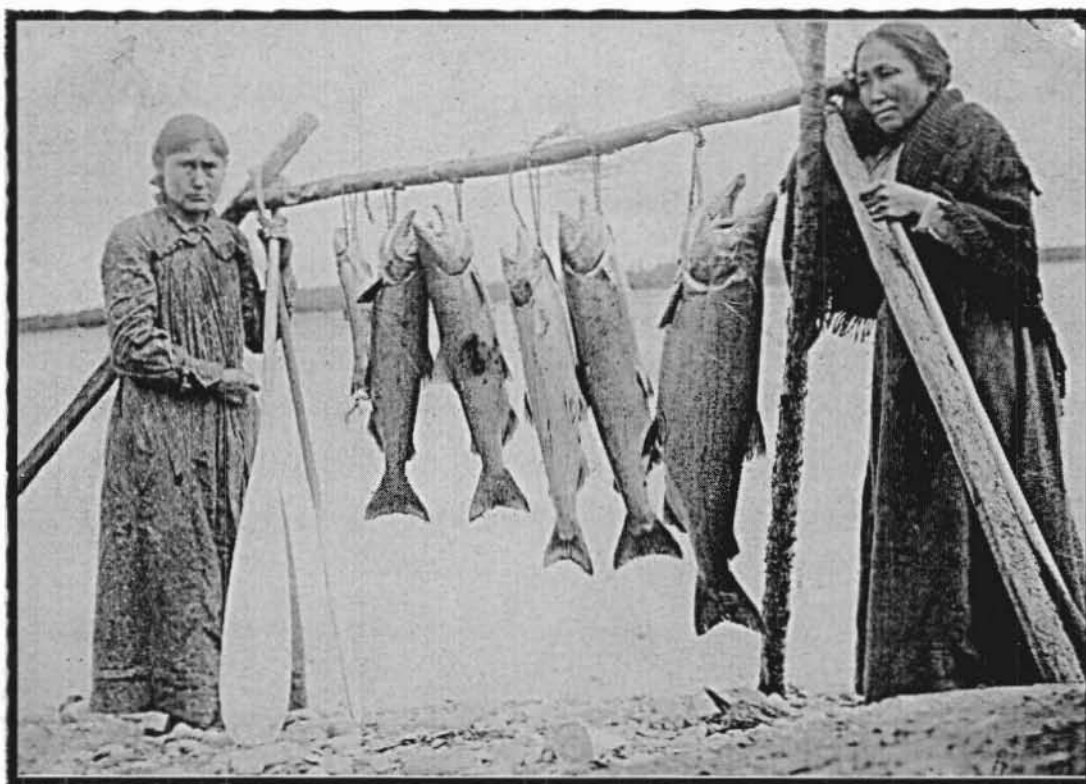


Tillie making a salmon net, Tanana Valley, circa 1920.

Frederick B. Drane Collection, Accession Number 91-046-637N,
Rasmuson Library Archives, University of Alaska Fairbanks.

JUNE 2000

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 King _____ Dog _____ Humpy _____	2 King _____ Dog _____ Humpy _____	3 King _____ Dog _____ Humpy _____
4 King _____ Dog _____ Humpy _____	5 King _____ Dog _____ Humpy _____	6 King _____ Dog _____ Humpy _____	7 King _____ Dog _____ Humpy _____	8 King _____ Dog _____ Humpy _____	9 King _____ Dog _____ Humpy _____	10 King _____ Dog _____ Humpy _____
11 King _____ Dog _____ Humpy _____	12 King _____ Dog _____ Humpy _____	13 King _____ Dog _____ Humpy _____	14 King _____ Dog _____ Humpy _____	15 King _____ Dog _____ Humpy _____	16 King _____ Dog _____ Humpy _____	17 King _____ Dog _____ Humpy _____
18 King _____ Dog _____ Humpy _____	19 King _____ Dog _____ Humpy _____	20 King _____ Dog _____ Humpy _____	21 King _____ Dog _____ Humpy _____	22 King _____ Dog _____ Humpy _____	23 King _____ Dog _____ Humpy _____	24 King _____ Dog _____ Humpy _____
25 King _____ Dog _____ Humpy _____	26 King _____ Dog _____ Humpy _____	27 King _____ Dog _____ Humpy _____	28 King _____ Dog _____ Humpy _____	29 King _____ Dog _____ Humpy _____	30 King _____ Dog _____ Humpy _____	



Harvest from the net, Mrs. Callahan and Mrs. Morency, Circle, 1899.

Dorothy Loftus Collection, Accession Number 80-84-8,
Rasmuson Library Archives, University of Alaska Fairbanks.

JULY 2000

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
 <div style="text-align: right;">1</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	Subsistence Salmon Fishing					<div style="text-align: right;">1</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>
<div style="text-align: right;">2</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">3</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">4</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">5</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">6</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">7</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">8</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>
<div style="text-align: right;">9</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">10</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">11</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">12</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">13</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">14</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">15</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>
<div style="text-align: right;">16</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">17</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">18</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">19</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">20</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">21</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">22</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>
<div style="text-align: right;">23</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">24</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">25</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">26</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">27</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">28</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">29</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>
<div style="text-align: right;">30</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>	<div style="text-align: right;">31</div> <div style="text-align: right;">King _____ Dog _____ Humpy _____</div>					



John Paul and Frank Luke fishing the trap, Salcha River, circa 1920.

Frederick B. Drane Collection, Accession Number 91-046-590,
Rasmuson Library Archives, University of Alaska Fairbanks.



AUGUST 2000



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	
	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	
6	7	8	9	10	11	12
Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____
13	14	15	16	17	18	19
Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____
20	21	22	23	24	25	26
Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____
27	28	29	30	31		
Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____	Fall Chum _____ Coho _____		



Fish camp on the Yukon River, circa 1910.

Albert Johnson Collection, Accession Number 89-166-572A,
Rasmuson Library Archives, University of Alaska Fairbanks.



SEPTEMBER 2000



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Please mail to Fish and Game when done fishing <input type="checkbox"/> THANK YOU!! <input type="checkbox"/>					1 Fall Chum _____ Coho _____	2 Fall Chum _____ Coho _____
3 Fall Chum _____ Coho _____	4 Fall Chum _____ Coho _____	5 Fall Chum _____ Coho _____	6 Fall Chum _____ Coho _____	7 Fall Chum _____ Coho _____	8 Fall Chum _____ Coho _____	9 Fall Chum _____ Coho _____
10 Fall Chum _____ Coho _____	11 Fall Chum _____ Coho _____	12 Fall Chum _____ Coho _____	13 Fall Chum _____ Coho _____	14 Fall Chum _____ Coho _____	15 Fall Chum _____ Coho _____	16 Fall Chum _____ Coho _____
17 Fall Chum _____ Coho _____	18 Fall Chum _____ Coho _____	19 Fall Chum _____ Coho _____	20 Fall Chum _____ Coho _____	21 Fall Chum _____ Coho _____	22 Fall Chum _____ Coho _____	23 Fall Chum _____ Coho _____
24 Fall Chum _____ Coho _____	25 Fall Chum _____ Coho _____	26 Fall Chum _____ Coho _____	27 Fall Chum _____ Coho _____	28 Fall Chum _____ Coho _____	29 Fall Chum _____ Coho _____	30 Fall Chum _____ Coho _____

PLEASE CHECK THIS BOX IF YOU DID NOT FISH THIS YEAR. ☐

Yukon Area Subsistence Salmon Fishery A Review of the 1999 Season

- * **54,000 Chinook salmon harvested for subsistence - average**
- * **Chum and coho salmon subsistence harvests - below average**

Yukon Area subsistence and personal use salmon harvests are documented by the Alaska Department of Fish and Game through the use of household surveys and permits. We would like to thank the people who participate in both the annual surveys as well as those who return permit harvest information. Congratulations to Mr. Patrick Tam of Emmonak, who was the 1999 catch calendar lottery winner. The information households provide assists in the management of precious Yukon River salmon resources. The following is a summary of results from the 1999 program (see summary table on the back page).

Subsistence salmon harvests in the Yukon Area during 1999 totaled 249,000 salmon as follows: 22% chinook, 34% summer chum, 36% fall chum, and 8% coho salmon.

- The 1999 chinook salmon harvest was average compared to the previous ten-year average. Although chinook salmon returns have been low for the last couple years, people maintained the normal amount of harvest by increasing effort.
- Both the 1999 summer chum and coho salmon harvests were 27% below their recent five-year averages. Weak salmon returns resulted in reduced harvest of both summer chum and coho salmon.

The 1999 fall chum salmon harvest was 17% below the recent five-year average; however this average contains years with anomalies including subsistence restrictions due to poor salmon returns as well as changes in commercial markets. The previous five-year average is a better representation of the normal amount of harvest and reflects that the 1999 fall chum salmon harvest was actually closer to 37% below normal.

- Salmon harvest information was obtained from 1,487 households. An estimated 1,353 households within the Yukon Area fished for salmon during 1999. An estimated 1,800 households reported owning nearly 7,000 dogs.

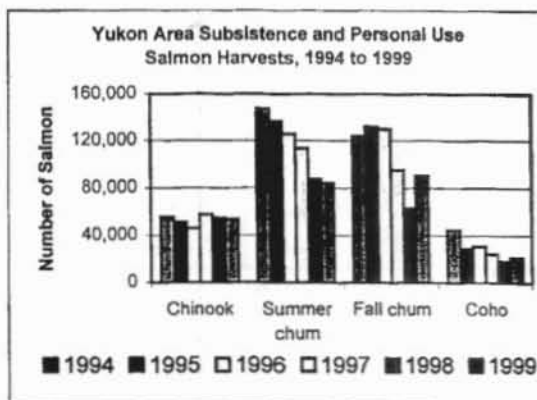
Interviews of members of households in each community provided the majority of the information. Other methods of data collection were subsistence salmon harvest calendars (including a lottery for returning properly completed calendars), telephone interviews, permit returns, as well as postal surveys.

Again we would like to thank the thousands of households who graciously provide information each season. Everyone have a safe fishing season.

Sincerely,

Bonnie Borba

Bonnie Borba
Division of Commercial Fisheries
Fairbanks, Alaska 99701
(907) 459-7274



Appendix A.2. (Page 2 of 2)

TABLE 1. PRELIMINARY SUBSISTENCE AND PERSONAL USE SALMON HARVEST ESTIMATES, YUKON AREA, 1999 a/

Community	Estimation Method b/	Total Households or Permits Issued	Households Contacted or Permits Returned	Estimated Fishing Households	Estimated Salmon Harvest			
					Chinook	Summer Chum	Fall Chum	Coho
Hooper Bay	Survey	194	56	66	173	10,146	0	68
Scammon Bay	Survey	76	20	41	936	3,315	204	0
Coastal District Subtotal		270	76	107	1,111	13,461	204	68
Sheldon Point	Survey	35	31	21	855	1,343	115	51
Alakanuk	Survey	128	43	58	1,236	3,808	556	108
Emmonak c/	Survey	157	69	80	3,337	10,310	1,849	525
Kotlik d/	Survey	90	31	52	1,420	4,708	3,980	1,046
District 1 Subtotal		410	174	211	6,848	20,169	6,502	1,730
Mt. Village e/	Survey	151	49	113	2,162	10,059	1,968	665
Pitkas Point	Survey	26	26	20	632	849	53	302
St. Marys	Survey	118	37	57	2,150	6,752	722	536
Pilot Station f/	Survey	95	40	47	2,715	5,265	1,155	249
Marshall g/	Survey	68	29	39	2,780	1,212	696	1,041
District 2 Subtotal		458	181	276	10,439	24,137	4,594	2,793
Russian Mission	Survey	57	17	38	2,722	616	100	542
Holy Cross	Survey	66	32	44	4,581	264	239	62
Shageluk	Survey	32	29	20	412	4,868	78	6
District 3 Subtotal		155	78	102	7,715	5,748	415	610
Anvik	Survey	40	35	13	776	848	126	282
Grayling	Survey	51	27	44	2,476	4,126	1,370	201
Kaltag h/	Survey	57	23	34	2,051	625	764	333
Nulato	Survey	100	30	37	1,799	1,945	2,338	170
Koyukuk	Survey	38	35	19	506	197	1,544	295
Galena	Survey	183	40	51	2,539	1,688	1,932	123
Ruby	Survey	73	19	9	777	1,697	907	620
District 4 Subtotal		542	209	207	10,924	11,126	8,981	2,024
Huslia	Survey	84	17	15	90	1,192	89	15
Hughes	Survey	24	19	10	105	577	84	10
Allakaket	Survey	54	20	6	108	2,245	20	0
Alatna	Survey	12	9	4	10	99	0	0
Bettles	Survey	20	18	1	1	100	0	0
Koyukuk River Subtotal		194	83	36	314	4,213	193	25
Tanana	Survey	122	49	27	3,388	1,214	22,305	3,969
Rampart	Survey	29	25	12	2,018	60	4,324	126
Stevens Village	Survey	31	21	14	1,214	26	20	0
Birch Creek	Survey	14	14	3	24	0	0	0
Beaver	Survey	32	27	12	473	91	16	0
Ft. Yukon	Survey	173	38	38	2,539	0	9,702	124
Fairbanks NSB	Permit	56	54	40	851	346	681	0
Circle	Permit	21	19	6	524	60	2,722	0
Central	Permit	12	12	6	91	0	0	0
Eagle	Permit	65	64	50	2,558	271	11,292	0
Other j/	Permit	25	25	12	488	42	65	2
District 5 Subtotal		580	348	220	14,168	2,110	51,127	4,241
Venetie	Survey	54	15	19	127	166	2,011	0
Chalkyitsik	Survey	35	34	8	35	0	442	0
Chandalar/Black Rivers Subtotal		89	49	27	162	166	2,453	0
Manley	Permit	16	16	9	136	272	5,172	3,244
Minto	Permit	65	58	29	317	173	781	0
Nenana	Permit	34	33	25	975	1,894	5,619	4,023
Healy	Permit	8	8	4	1	0	2,267	1,259
Fairbanks NSB	Permit	144	144	88	526	697	1,892	1,021
Other k/	Permit	30	30	12	0	0	2	0
District 6 Tanana River Subtotal		297	289	167	1,955	3,036	15,733	9,547
Survey Community Subtotal		2,519	1,024	1,072	47,169	80,411	59,709	11,489
Permit Area Subtotal m/		476	463	281	6,467	3,755	30,493	9,549
Yukon River Area Total		2,995	1,487	1,353	63,636	84,166	90,202	21,038

a/ Source: "Subsistence and Personal Use Salmon Harvests, Yukon Area, 1999" (in prep.) by Borba, B.M. and Hamner, H.H. Alaska Department of Fish and Game (ADF&G).

Harvests are listed by area and by fishermen's community of residence.

b/ Includes permit information received as of March 31, 2000.

c/ Includes 1,165 chinook, 2,116 summer chum, 1,563 fall chum, and 138 coho salmon from ADF&G test fish catches.

d/ Includes 491 chinook, 601 summer chum, 2,498 fall chum, and 511 coho salmon from ADF&G test fish catches.

e/ Includes 1 chinook, 1,008 fall chum and 2 coho salmon from Bering Sea Fishermen's Association test fish catches.

f/ Includes 359 chinook, 1,636 summer chum, 968 fall chum and 180 coho salmon from ADF&G test fish catches.

g/ Includes 773 chinook and 181 summer chum salmon from ADF&G test fish catches.

h/ Includes 1 chinook, 483 fall chum and 70 coho salmon from City of Kaltag test fish catches.

i/ Other includes residents of communities not listed in this section who fished in District 5 of the Yukon River.

j/ Other includes residents of communities not listed in this section who fished in District 6 of the Tanana River.

k/ Permit totals include 39 permits issued for two different areas and include Tolovana River pike permits. Permit totals do not include six subsistence salmon permits issued to Stevens Village residents. Permit harvest information from Stevens Village residents was included in the survey data.

Appendix A.3. Example of the subsistence salmon postseason interview form, Yukon Area, 2000.

Community _____	HHID# _____
Date of Survey _____	Person Interviewed _____
Interviewer _____	Relation to HH _____

2000 Post-Season Subsistence Salmon Harvest Survey Yukon Area
CONFIDENTIAL INFORMATION

1. We would like to make sure we have the correct name and address for your household.

Head of Household _____

Mailing Address _____ Telephone: _____

Permanent Note _____

Significant Other _____

Permanent Note _____

Adult household member was contacted and declined to be interviewed. [] Reason given: _____
2. Did anyone in your household catch salmon for subsistence use this year? Yes _____ No _____ (If no go to area II.)
Fish use includes salmon eaten fresh, frozen, dried, smoked, and those used for dog food. Include all salmon kept for subsistence use. Include female carcasses from which roe was removed and sold commercially.

I. HOUSEHOLDS THAT FISHED

3. May I have your salmon catch calendar?
Picked up by interviewer _____ Didn't get one _____ Didn't Use _____ Not available _____ Already sent In _____
If you used a calendar are all the fish harvested on it? Yes _____ No _____ (if no, estimate remainder on calendar)
4. How many total salmon did you or your fishing group catch this year? ("group" may include other households)
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
5. How many households help catch these fish? _____ (Names) _____
- *6. How many total salmon did your household catch for subsistence purposes this year?
(Include only fish caught by this household, not the group, includes fish taken home from commercial periods.)
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
7. Did this household commercial fish this year? Yes _____ No _____
8. If Yes. How many of your households' salmon catch was taken commercially? (i.e. retained by a commercial fisherman during a commercial fishing period for subsistence use. Include female carcasses with roe removed and sold separately and all male salmon.)
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
9. Where do you catch your subsistence salmon? (Circle all that apply and show harvest by area if more than one)
Ocean 1 2 3 4A 4B 4C 5A 5B 5C 5D Innoko, Koyukuk, Chandalar, Porcupine, Black
Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
10. What is your households' primary type of salmon fishing gear? (In order of importance 1 = primary)
Set net _____ Drift net _____ Fish Wheel _____ Hook & Line _____ Other _____
11. How many salmon did you keep for your household's use? (Does not include fish given to other households)
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
12. Did your household share the salmon catch with any other households? (Names, HHIDs, Species and Numbers)

II. ALL HOUSEHOLDS

13. Did your household catch any other fish besides salmon? Yes _____ No _____
(Harvest numbers should include from September/October of last year to now.) (Large Whitefish are 4 pounds or greater)
- LG WHITEFISH _____ SM WHITEFISH _____ SHEEFISH _____ BURBOT _____ PIKE _____ BLACKFISH _____
GRAYLING _____ SUCKERS _____ TROUT (Arctic Char) _____ EELS (Lamprey) _____ TOMCOD (Saffron) _____
14. Was your household given any salmon? Yes _____ No _____ Code: S=Subsistence, C=Commercial, & T=Test Fish
- Code: _____ Fishermen/Project (Name) _____
- CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
- Code: _____ Fishermen/Project (Name) _____
- CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
15. How many people live in your household? _____
16. How many dogs (including puppies) does your household have? _____ (If none go to question 20)
17. Do you feed whole salmon to your dogs? Yes _____ No _____ Only Feed Scraps _____ (If no go to question 20)
18. Were any of the salmon put up for the dogs from the commercial fishery? Yes _____ No _____ Some _____
19. Estimate harvest of salmon put up for dogs this year by fishery:
(Separate by fishery, either subsistence or commercial. Numbers should represent whole fish, not scraps.)
(subsistence harvest) JACKS/KINGS _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____
(commercial harvest) JACKS/KINGS _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____
20. Did your household get enough subsistence salmon this year? Yes _____ No _____ Could not estimate _____
21. How was subsistence salmon fishing for your households this year?
- King: _____ Very Good _____ Average _____ Very Poor _____ If Poor, why? _____
Dog Salmon: _____ Very Good _____ Average _____ Very Poor _____ If Poor, why? _____
Fall Chum: _____ Very Good _____ Average _____ Very Poor _____ If Poor, why? _____
Coho: _____ Very Good _____ Average _____ Very Poor _____ If Poor, why? _____
- Additional Comments: _____

THANK YOU FOR YOUR HELP. THIS INFORMATION IS USED TO DOCUMENT THE SUBSISTENCE SALMON HARVEST WITHIN THE YUKON RIVER DRAINAGE AND TO TRY TO MAKE SURE THERE WILL BE ENOUGH SALMON FOR THE FUTURE. A SUMMARY OF THE SUBSISTENCE SALMON SURVEY WILL BE SENT OUT NEXT SPRING ALONG WITH THE HARVEST CALENDARS.

Interviewer, please note any comments about this interview or anything of value for assisting data analysis.

THIS HOUSEHOLD'S TOTAL SUBSISTENCE SALMON CATCH (This area is to be filled in by the surveyor after the interview.)
(Subtract numbers obtained in question 8 from numbers obtained from question 6.)

CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

THIS HOUSEHOLD'S TOTAL SUBSISTENCE SALMON USE (This area is to be filled in by the surveyor after the interview.)
(Add numbers obtained from question 11 to numbers obtained from question 14.)

CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

Complete Survey _____ Partial Survey _____ No Survey _____

Appendix A.4. Example of the letter sent to selected subsistence fishermen from the listed villages that complied with 1999 reporting requirements, announcing the dates and times for 2000 permit issuance, Yukon Area.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES

TONY KNOWLES, GOVERNOR

1300 COLLEGE ROAD
FAIRBANKS, ALASKA 99701-1599
PHONE: (907) 459-7274
FAX: (907) 452-1668

April 26, 2000

Dear Subsistence Fishermen:

Regulations require subsistence fishermen to obtain a permit prior to fishing in three areas within the upper Yukon River drainage. Subsistence fishing permits are required upstream of Twenty-two Mile Slough to the Canada Border (includes the villages of Circle and Eagle), near the "Yukon River Bridge" (between Hess Creek and the Dall River), and within the Tanana River drainage (except in the Fairbanks Nonsubsistence Area). Our records indicate that you were issued a 1999 subsistence permit for one of the above areas. If you are planning to fish in the upper Yukon River drainage in 2000, we are providing you with the opportunity to obtain a subsistence fishing permit in the following villages at the dates and times indicated:

VILLAGE	PLACE	DAY/DATE	TIME
MINTO	Lake View Lodge	Tuesday, May 16, 2000	11:30 a.m. to 3:00 p.m.
MANLEY	Manley Roadhouse	Wednesday, May 17, 2000	10:00 a.m. to 1:30 p.m.
NENANA	Boat Landing	Thursday, May 18, 2000	10:30 a.m. to 2:30 p.m.
CENTRAL	Post Office	Thursday, May 18, 2000	11:30 a.m. to 3:00 p.m.
CIRCLE	Boat Landing	Friday, May 19, 2000	11:00 a.m. to 2:00 p.m.
EAGLE	Post Office	Tuesday, May 23, 2000	10:30 a.m. to 1:00 p.m.
DELTA JUNCT.	Delta Fish and Game	Wednesday, May 24, 2000	10:00 a.m. to 10:30 p.m.
DOT LAKE	Community Hall	Wednesday, May 24, 2000	12:00 noon to 1:30 p.m.
TANACROSS	Community Center	Wednesday, May 24, 2000	3:00 p.m. to 6:00 p.m.
TOK	Tok Fish and Game	Thursday, May 25, 2000	8:00 a.m. to 10:00 a.m.
NORTHWAY	Community Hall	Thursday, May 25, 2000	12:00 noon to 5:00 p.m.

If you would like to be issued a permit in person, please complete the top portion of the enclosed "Household Application and Permit" form and present the form to the department representative at a place and time indicated above. The issuing officer will complete the bottom portion of the application and return the 2000 subsistence fishing permit to you. The issuing officer will be able to provide you with results of the subsistence fish harvest in the required permit areas and the salmon harvest throughout the Yukon River drainage in 1999 by community.

If you would like to obtain a permit by mail, please complete the top portion of the enclosed "Household Application and Permit" form and return the application (including the carbon copy) to the address indicated at the top of the application. Address the letter to the attention of the Subsistence Permit Issuing Officer. The bottom section of the application will be completed by the issuing officer

and returned by mail. The application is not a valid permit until you have completed and signed the top portion, and the issuing officer has completed and signed the bottom portion.

Subsistence permits are also available at the Alaska Department of Fish and Game offices in Delta Junction, Tok, and Fairbanks during regular business hours.

I would like to extend my appreciation to all the households who have returned their previous permits in a timely manner. Our effort to document the Yukon Area subsistence harvest has been successful because of the cooperation of fishermen throughout the drainage.

If you have any questions or comments, please contact me.

Sincerely,



William H. Busher
Fishery Biologist

Enclosures: Permit Application

Appendix A.5. Example of the first subsistence fishing permit reminder letter sent to households that complied with the inseason reporting requirement by telephone but had not reported postseason, 2000.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES

TONY KNOWLES, GOVERNOR

1300 COLLEGE ROAD
FAIRBANKS, AK 99701-1599
PHONE: (907) 459-7274
FAX: (907) 452-1668

November 3, 2000

Jane Doe
P.O. Box ###
Riverbanks, AK 99###

Dear Jane:

The Department of Fish and Game (department) issued you subsistence fishing permit SB-####-00 for the 2000 fishing season. Your permit expired on October 15, 2000, however, our office has not received your expired permit. The harvest information you recorded on the permit is needed to accurately document the salmon harvests within the Tanana River drainage. Our records show that we received telephone catch reports from you during the 2000 fishing season. Your telephone reports indicate you harvested the following number of fish:

Chinook/King 50 Summer Chum 10 Fall Chum 0 Coho 5

We appreciate your telephone reporting efforts and utilize the telephone catch reports for inseason fisheries management. Although you may feel this completes your reporting requirement, a condition of the permit requires that you keep an accurate record of your catch and return your expired permit with the total number of fish you harvested this season. If you have recently returned your permit, please disregard this reminder notice. If you are unable to locate your expired permit, please fill in the total number of fish you harvested this past season and return this letter to the department.

Chinook/King _____ Summer Chum _____ Fall Chum _____ Coho _____

Whitefish _____ Pike _____ Grayling _____ Suckers _____

Burbot _____ Other (specify species) _____

Number of whole salmon fed to dogs or put up for dog food _____

Signature _____

Date _____

Similar to last season, poor salmon returns were observed throughout western Alaska, suggesting poor marine survival. Marine survival may be linked to climatic changes and the carrying capacity of the ocean. The majority of the salmon index spawning streams did not meet minimum biological escapement goals in 2000. In an effort to provide for adequate spawning escapement, fishermen in the Tanana River drainage were limited by subsistence fishing restrictions during the summer season and fishery closures during the fall season. If you have any questions, feel free to contact me.

Sincerely,

Bonnie Borba
Fishery Biologist

Appendix A.6. Example of the second personal use permit reminder letter, 2000.

<div style="text-align: center;"><h1 style="margin: 0;">STATE OF ALASKA</h1><h2 style="margin: 0;">DEPARTMENT OF FISH AND GAME</h2><h3 style="margin: 0;">DIVISION OF COMMERCIAL FISHERIES</h3></div>	<div style="border-left: 1px solid black; padding-left: 10px;"><p>TONY KNOWLES, GOVERNOR</p><p>1300 COLLEGE ROAD FAIRBANKS, AK 99701-1599 PHONE: (907) 459-7274 FAX: (907) 452-1668</p></div>
---	---

December 8, 2000

John Doe
P.O. Box ###
Cuttersville, AK 99###

Dear John:

The Department of Fish and Game (department) issued subsistence fishing permit SY-###-00 to you for the 2000 season. To date, the department has not received your expired permit and harvest information. Regulations require you to keep an accurate record of your harvest and to return the expired permit with the harvest record at the end of the season. Even if you did not fish, or caught no fish, you must return your completed permit or this letter. **FAILURE TO REPORT YOUR HARVEST INFORMATION MAY RESULT IN DENIAL OF A PERMIT NEXT YEAR.**

If you have recently returned your permit, please disregard this reminder notice. If you have misplaced your expired permit, please answer the following questions and return this letter in the postage-paid envelope provided.

I fished in the **Yukon River** drainage in 2000. (Circle one) Yes No

If you fished, please provide the number of fish you caught below:

Chinook/King _____ Summer Chum _____ Fall Chum _____ Coho _____

Whitefish _____ Pike _____ Grayling _____ Burbot _____

Suckers _____ Other (specify species) _____

Number of whole salmon fed to dogs or put up for dog food _____


Signature	Date
-----------	------

The information from your permit is needed to accurately document this past season's harvest. Individual household harvests are confidential; reports only contain harvest information by fishery, drainage, and community. This is your second and **FINAL** notice that we have not received your expired permit with the recorded harvest information.

Sincerely,

William H. Busher
Fishery Biologist

Appendix A.7. Example of the Yukon Area personal use fishing permit application, 2000.

Household Application and Permit for Personal Use Salmon Fishing			
Dept. of Fish and Game, Commercial Fisheries Management and Development Division 1300 College Road, Fairbanks, AK 99701 Telephone (907) 459-7274			
			
Name _____ <small>(PLEASE PRINT)</small>		Telephone _____ <small>(Home, Work, or Message)</small>	
Mailing Address _____ <div style="display: flex; justify-content: space-between; width: 100%;"> City State Zipcode </div>			
Total Household Member(s) _____ <small>(Include yourself)</small>		Other Household Member(s) _____ <small>(Names of other household members authorized to fish this permit)</small>	
Area to be Fished: Subdistrict 6-C - Including the Tanana River upstream of the confluence with Wood River to the mouth of the Salcha River.			
Fishing Gear to be Used: Primary _____ Secondary _____			
Conditions of Permit: All regulations pertaining to personal use fishing in the area to be fished are to be observed. Anyone fishing this household's permit must be named above and carry this permit on their person during any fishing activity. For a 24-hour recording of personal use, subsistence, or commercial salmon fishing schedules, call (907) 459-7387. It is unlawful to buy, sell, trade, or barter fish or their parts, taken under personal use.			
An accurate record of fish taken under authority of this permit must be recorded on the reverse side of this permit on the same day the fish are landed. PERSONAL USE SALMON PERMITTEES ARE REQUIRED TO REPORT THEIR WEEKLY CATCHES BY CALLING THE DEPARTMENT OF FISH AND GAME AT (907) 459-7388 BY 4:30 P.M. EVERY THURSDAY. Return this permit with your completed catch information within <u>10 days</u> after the permit expiration date. FAILURE TO RETURN THIS PERMIT OR REPORT THIS HOUSEHOLD'S CATCH INFORMATION MAY RESULT IN YOU BEING DENIED A HOUSEHOLD PERMIT NEXT YEAR.			
A resident Alaska sport fishing license is required by 5 AAC 77.010. Permit is invalid unless permittee has in their possession a valid resident Alaska sport fishing license.			
X _____ Date _____ Sport Fish License No. _____ Signature of Permittee - I hereby claim I am a resident of Alaska and that the above information I have provided on this permit is true as witnessed by my signature.			
<u>TO BE COMPLETED BY ISSUING OFFICER</u>			
The above named household member(s) is authorized to take salmon according to the following stipulations: Permit is valid for Subdistrict 6-C and expires October 15 of the year issued, unless otherwise noted.			
Tanana 6C/PC Under authority of this permit 10 chinook salmon and 75 chum salmon may be taken from the date of issue through August 15. In addition, from August 16 through October 15, a combined total of 75 chum and coho salmon may be taken.			
_____ Signature of Issuing Officer		_____ Date Issued	
		PC - _____ Permit Number	

Revised 4/98

YUKON AREA PERSONAL USE SALMON FISHERY CATCH FORM

THIS RECORD MUST BE SUBMITTED TO THE DEPARTMENT OF FISH AND GAME WITHIN 10 DAYS AFTER THE EXPIRATION DATE OF THE PERMIT WHETHER YOU FISHED OR NOT. FAILURE TO RETURN THIS FORM MAY BE CAUSE TO REFUSE YOU A PERSONAL USE PERMIT NEXT YEAR.

[illegible]

RETURN TO: Alaska Department of Fish and Game
Commercial Fisheries Management
and Development Division
1300 College Road
Fairbanks, AK 99701
Telephone: (907) 459-7274

PLEASE CHECK THIS BOX IF YOU DID NOT FISH THIS YEAR

☐


Sign this Catch Report when you return it.

Date _____

Appendix A.8. Example of the Tanana River subsistence fishing permit application, 2000.

Household Application and Permit for Subsistence Fishing

Alaska Department of Fish and Game, Division of Commercial Fisheries
1300 College Road, Fairbanks, AK 99701 Telephone (907) 459-7274



Name _____ Telephone _____
(PLEASE PRINT) (Home, Work, or Message)

Mailing Address _____
City State Zipcode

Total Household Member(s) _____ Other Household Member(s) _____
(Include yourself) (Names of other household members authorized to fish this permit)

Number of Dogs in Household _____ Do you feed whole salmon to dogs? (Circle one) Yes No

Area to be Fished: (Circle one) Tanana 6A Tanana 6B Upper Tanana (above the Fairbanks Nonsubsistence Area)

Fishing Gear to be Used: Primary _____ Secondary _____

Conditions of Permit: All regulations pertaining to subsistence fishing in the area are to be observed. Anyone fishing this household's permit must be named above and carry this permit on their person during any fishing activity. It is unlawful to buy or sell subsistence-taken fish, their parts, or their eggs. For a 24-hour recording of subsistence, personal use or commercial salmon fishing schedules, call (907) 459-7387.

An accurate record of fish taken under authority of this permit must be recorded on the reverse side of this permit on the same day fish are landed. PERMITTEES FISHING IN THE UPPER PORTION OF SUBDISTRICT 6-B (three miles upstream of Totchaket Slough) ARE REQUIRED TO REPORT THEIR WEEKLY CATCH BY CALLING THE DEPARTMENT OF FISH AND GAME AT (907) 459-7388 BY 4:30 P.M. EVERY THURSDAY. Return this permit, whether you fished or not, with your completed catch information to the Alaska Department of Fish and Game, Division of Commercial Fisheries, 1300 College Road, Fairbanks, Alaska, 99701 within 10 days after the permit expiration date. FAILURE TO RETURN THIS PERMIT OR REPORT THIS HOUSEHOLD'S CATCH INFORMATION MAY RESULT IN YOU BEING DENIED A HOUSEHOLD PERMIT NEXT YEAR.

X _____ Date _____ Birthdate or Drivers License No. _____

Signature of Permittee - I hereby claim I am a resident of Alaska and that the information I have provided on this permit is true as witnessed by my signature.

TO BE COMPLETED BY ISSUING OFFICER

The above named household member(s) is authorized to take fish according to the following stipulations. Permit is valid for the location marked and expires October 15 of the year issued, unless otherwise noted.

SA ☐ Tanana/6A Under authority of this permit 60 chinook salmon and 500 chum salmon may be taken from the date of issue through August 15. In addition, from August 16 through October 15, a combined total of 2,000 chum and coho salmon may be taken.
(Note: A separate permit is required for the Kantishna River drainage.)

SB ☐ Tanana/6B

SU ☐ Upper Tanana Under authority of this permit fish may be taken in the upper Tanana River drainage upstream of the Fairbanks Nonsubsistence Area. Permit expires December 31 of the year issued.

 Signature of Issuing Officer Date Issued Permit Number

Revised 4/99

YUKON AREA SUBSISTENCE FISHERY CATCH FORM

THIS RECORD MUST BE SUBMITTED TO THE DEPARTMENT OF FISH AND GAME WITHIN 10 DAYS AFTER THE EXPIRATION DATE OF THE PERMIT, WHETHER YOU FISHED OR NOT. FAILURE TO RETURN THIS FORM MAY BE CAUSE TO REFUSE YOU A SUBSISTENCE PERMIT NEXT YEAR.

[illegible]

RETURN TO:

Alaska Department of Fish and Game
Division of Commercial Fisheries
1300 College Road
Fairbanks, AK 99701
Telephone: (907) 459-7274


PLEASE CHECK THIS BOX IF YOU DID NOT FISH THIS YEAR

Sign this Catch Report when you return it.

Date _____

The Alaska Department of Fish and Game administers all programs and activities free from discrimination on the basis of sex, color, race, religion, national origin, age, marital status, pregnancy, parenthood, or disability. For information on alternative formats available for this and other department publications, contact the department ADA Coordinator at (voice) 907-465-4120 or (telecommunication device for the deaf) 1-800-478-3648.

Appendix A.9. Example of the Kantishna River and Upper Yukon River subsistence fishing permit application, 2000.

Household Application and Permit for Subsistence Fishing Alaska Department of Fish and Game, Division of Commercial Fisheries 1300 College Road, Fairbanks, AK 99701 Telephone (907) 459-7274		
Name _____ <small>(PLEASE PRINT)</small>	Telephone _____ <small>(Home, Work, or Message)</small>	
Mailing Address _____		
City	State	Zipcode
Total Household Member(s) _____ <small>(Include yourself)</small>	Other Household Member(s) _____ <small>(Names of other household members authorized to fish this permit)</small>	
Number of Dogs in Household _____ Do you feed whole salmon to dogs? <small>(Circle one)</small> Yes No		
Area to be Fished: <small>(Circle one)</small> Kantishna River Yukon River Bridge Circle/Eagle		
Fishing Gear to be Used: Primary _____ Secondary _____		
<p>Conditions of Permit: All regulations pertaining to subsistence fishing in the area are to be observed. Anyone fishing this household's permit must be named above and carry this permit on their person during any fishing activity. It is unlawful to buy or sell subsistence-taken fish, their parts, or their eggs. For a 24-hour recording of subsistence, personal use or commercial salmon fishing schedules, call (907) 459-7387.</p> <p>An accurate record of fish taken under authority of this permit must be recorded on the reverse side of this permit on the same day fish are landed. Return this permit, whether you fished or not, with your completed catch information to the Alaska Department of Fish and Game, Division of Commercial Fisheries, 1300 College Road, Fairbanks, Alaska, 99701 within <u>10 days</u> after permit expiration date. FAILURE TO RETURN THIS PERMIT OR REPORT THIS HOUSEHOLD'S CATCH INFORMATION MAY RESULT IN YOU BEING DENIED A HOUSEHOLD PERMIT NEXT YEAR.</p>		
X _____ Date _____	Birthdate or Drivers License No. _____	
Signature of Permittee - I hereby claim I am a resident of Alaska and that the above information I have provided is a true statement as witnessed by my signature.		
<u>TO BE COMPLETED BY ISSUING OFFICER</u>		
<p>The above named household member(s) is authorized to take fish according to the following stipulations: Permit is valid for the location marked below and expires October 15 of the year issued, unless otherwise noted.</p>		
SK <input type="checkbox"/> Kantishna River	Under authority of this permit, 60 chinook salmon and 500 chum salmon may be taken from the Kantishna River drainage from the date of issue through August 15. From August 15 through December 31, a total of 450 chum salmon may be taken. The permit holder is required to keep daily and cumulative harvest information at the fishing site that is accessible to department personnel. After August 15, the Kantishna River drainage fishery harvest limit is 2,000 chum salmon. Once the fishery limit is taken, the directed chum salmon subsistence fishery will close by Emergency Order. Permit expiration date is December 31 of the year issued.	
SE <input type="checkbox"/> Circle, Eagle	Under authority of this permit, fish may be taken from the Yukon River drainage from the mouth of Twenty-two Mile Slough upstream to the U.S./Canada border.	
SY <input type="checkbox"/> Yukon Bridge	Under authority of this permit, fish may be taken from the Yukon River drainage from the mouth of Hess Creek to the mouth of the Dall River.	
_____ Signature of Issuing Officer	_____ Date Issued	_____ Permit Number

Revised 2/99

YUKON AREA SUBSISTENCE FISHERY CATCH FORM

THIS RECORD MUST BE SUBMITTED TO THE DEPARTMENT OF FISH AND GAME WITHIN 10 DAYS AFTER THE EXPIRATION DATE OF THE PERMIT, WHETHER YOU FISHED OR NOT. FAILURE TO RETURN THIS FORM MAY BE CAUSE TO REFUSE YOU A SUBSISTENCE PERMIT NEXT YEAR.

[illegible]

RETURN TO:

RETURN TO:
Alaska Department of Fish and Game
Division of Commercial Fisheries
1300 College Road
Fairbanks, AK 99701
Telephone: (907) 459-7274

PLEASE CHECK THIS BOX IF YOU DID NOT FISH THIS YEAR.

7

Sign this Catch Report when you return it.

Date _____

The Alaska Department of Fish and Game administers all programs and activities free from discrimination on the basis of sex, color, race, religion, national origin, age, marital status, pregnancy, parenthood, or disability. For information on alternative formats available for this and other department publications, contact the department ADA Coordinator at (voice) 907-465-4120 or (telecommunication device for the deaf) 1-800-478-3648.

APPENDIX B

YUKON RIVER DRAINAGE HISTORICAL SUBSISTENCE AND PERSONAL USE SALMON HARVESTS

Appendix B.1 Estimated chinook salmon subsistence harvest by fishing district and by community of residence, Yukon Area, 1989-2000. a

Community	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	1990-1994 Average	1995-1999 Average
Hooper Bay Scammon Bay	14 b 2 b			503 948	230 1,199	157 608	1,500 585	1,127 1,238	613 528	13 378	173 838	114 449	297 c 938 c	685 733
Coastal District Subtotal	16			1,451	1,429	825	2,085	2,365	1,139	391	1,111	563	1,235	1,418
Sheldon Point	165	756	445	388	561	606	459	450	970	527	855	684	551	652
Alakanuk	820	871	1,044	623	2,562	1,045	1,191	662	2,058	1,930	1,236	1,109	1,229	1,415
Emmonak	1,598	1,873	1,311	2,336	4,372	2,384	1,711	702	3,080	2,386	3,337	2,205	2,455	2,245
Kollik	1,982	3,119	3,125	1,794	2,913	2,505	2,599	1,832	1,442	2,389	1,420	1,893	2,691	1,936
District 1 Subtotal	4,565	6,619	5,925	5,141	10,408	6,540	5,960	3,646	7,550	7,242	6,648	5,891	6,927	6,249
Mountain Village	2,001	1,792	1,171	1,249	3,217	1,511	1,542	1,315	2,081	2,533	2,162	1,715	1,788	1,927
Pikas Point	592	391	652	851	1,001	469	559	762	793	817	632	753	673	713
St. Marys	1,592	2,095	1,935	1,753	2,042	2,722	2,031	1,766	2,592	2,679	2,150	1,810	2,088	2,244
Pilot Station	1,498	3,786	2,681	1,618	2,661	1,977	1,614	1,811	2,373	1,715	2,715	2,378	2,585	2,046
Marshall	1,464	1,492	1,277	1,403	2,592	2,277	3,291	2,126	1,511	1,711	2,780	3,279	1,808	2,284
District 2 Subtotal	7,147	9,546	7,617	7,074	11,513	8,956	9,037	7,780	9,350	9,455	10,439	9,935	8,941	9,212
Russian Mission	2,367	1,694	1,349	1,282	3,273	1,793	2,450	2,709	1,459	1,314	2,722	1,860	1,878	2,131
Holy Cross	2,379	2,337	1,549	3,491	3,191	4,040	2,808	3,953	3,472	2,648	4,591	1,249	2,942	3,482
Shageluk	32	62	189	218	128	291	161	121	1,380	552	412	805	178	525
District 3 Subtotal	4,778	4,093	3,187	4,991	6,592	6,124	5,419	6,783	6,311	4,514	7,715	3,914	4,997	6,148
Lower Yukon River Total	16,490	20,258	16,729	17,206	28,513	21,620	20,416	18,209	23,211	21,211	25,002	19,740	20,865	21,610
Anvik	418	481	619	389	663	424	450	768	951	1,025	776	205	515	794
Grayling	1,082	144	874	1,074	1,045	1,843	1,340	1,036	2,391	2,177	2,476	839	996	1,884
Kallag	1,306	2,244	1,866	1,084	1,260	1,653	1,890	994	1,036	1,870	2,051	1,074	1,621	1,568
Niilato	2,079	2,788	2,500	1,596	1,660	1,735	1,533	1,461	1,578	4,147	1,799	1,083	2,056	2,103
Koyukuk	1,003	876	895	510	853	589	146	402	851	800	506	175	743	541
Galena	1,374	3,134	2,574	1,870	1,732	1,834	1,336	2,770	2,350	1,668	2,539	788	2,229	2,133
Ruby/Kokines	1,016	811	971	498	3,263	1,539	1,435	557	2,260	3,891	777	1,577	1,416	1,784
District 4 Yukon River Subtotal (Excluding the Koyukuk River)	8,278	10,478	10,289	7,021	10,476	9,617	8,130	7,988	11,415	15,578	10,924	5,741	9,576	10,807
Huslia	177	198	198	751	232	239	932	67	57	23	90	424	324	234
Hughes	181	90	146	29	88	107 d	77	54	34	91	105	50	92	72
Alakaket	438 f	284	446	395	135	338 d	321	82	423	85	108	41	320	204
Alaina	- f	72	5	42	4	26 d	10	2	38	4	10	8	30	13
Bettles	0	0	16	53	1	0	4	0	39	20	1	0	14	1
Koyukuk River Subtotal	796	644	811	1,270	460	710	1,344	205	591	223	314	523	779	535
District 4 Subtotal	9,074	11,122	11,100	8,291	10,936	10,327	9,474	8,193	12,008	15,801	11,238	6,264	10,355	11,342

-Continued-

Appendix B.1. (page 2 of 2)

Community	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	1990-1994 Average	1995-1999 Average
Tanana	3,008	2,284	2,483	2,477	3,382	2,999	2,398	2,741	3,598	5,212	3,388	2,895	2,721	3,487
Rampart	3,177	1,481	988	2,802	1,956	1,354	1,461	1,751	2,203	885	2,018	847	1,716	1,664
Fairbanks g h	200	420	992	1,394	1,514	1,920	1,447	1,166	955	1,231	851	1,342	1,246	1,130
Stevens Village	3,101	1,295	2,035	1,887	1,754	2,814	2,674	681	2,070	1,232	1,214	466	1,957	1,574
Birch Creek	0	0	195	44	0	119	93	0	373	48	24	72	72	108
Beaver	1,694	721	713	1,584	1,557	850	1,021	886	1,959	470	473	196	1,081	942
Fort Yukon	4,898	4,051	5,585	4,122	6,361	4,727	3,132	4,957	3,145	1,771	2,539	988	4,969	3,109
Circle h	1,785 j	1,767	1,720	1,565	745	1,377	1,145	1,781	1,091	665	524	827	1,439	1,216
Central h	- j	184	151	167	210	240	171	131	146	170	91	26	190	172
Eagle h	2,385	1,742	1,193	1,040	753	1,234	1,886	1,092	1,534	2,473	2,558	1,087	1,192	1,909
Other h k	615	374	571	437	437	602	1,004	377	763	446	488	205	520	616
District 5 Yukon River Subtotal (Excluding Chandalar/Black Rivers)	20,248	14,500	16,420	17,653	18,649	18,236	16,432	15,563	17,735	14,623	14,168	8,751	17,104	15,704
Venette	88	29	9	35	2,716	524	434	134	314	168	127	103	663	235
Chalkyitsik	0	0	0	3	0	0	0	30	0	11	35	0	1	15
Chandalar/Black Rivers Subtotal	88	29	9	38	2,716	524	434	164	314	179	162	103	663	251
District 5 Subtotal	20,336	14,589	16,429	17,691	21,365	18,760	16,866	15,727	18,049	14,802	14,330	8,854	17,767	15,955
Manley h	992	1,169	401	551	238	480	335	134	242	209	136	58	568	211
Minto h	366	100	134	142	468	316	535	523	1,206	275	317	0	232	572
Nenana h	1,188	1,265	1,599	1,267	693	759	607	423	1,082	1,187	975	541	1,117	855
Fairbanks h m	0	84	378	402	273	775	285	97	176	230	195	360	382	197
Other h n	0	0	3	76	0	40	17	0	4	18	1	24	24	8
District 6 Tanana River Subtotal	2,546	2,618	2,515	2,438	1,672	2,370	1,779	1,177	2,712	1,919	1,624	983	2,323	1,842
Upper Yukon River Total	31,956	28,329	30,044	28,420	33,973	31,457	28,119	25,097	32,767	32,522	27,192	16,101	30,445	29,139
Alaska, Yukon River Total p	48,446	48,587	46,773	45,626	62,486	53,077	48,535	43,306	55,978	53,733	52,194	35,841	51,310	50,749
Alaska, Yukon Area Total	48,462	48,587	46,773	47,077	63,915	53,902	50,620	45,671	57,117	54,124	53,305	36,404	52,051	52,167

a Historic estimated subsistence harvests are available in each year's respective Yukon Area Annual Management Report (1961 to 1999). Beginning in 1988 subsistence salmon harvest estimates have been generated from a stratified random sample of village households. Estimates include test fish catches given away. Blanks indicate harvest information was not collected.

b The community was not surveyed, harvest estimates were calculated from calendar and post card replies.

c Average harvest includes 1992, 1993 and 1994.

d Due to floods in 1994, Hughes, Alakaket, and Alaketa were not surveyed. The 1994 chinook salmon harvest is estimated based on a five-year-average, 1989-1993.

e Alaska and Alakaket harvests combined in 1989.

f Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

g In 1988 and 1989, permit and household interview data were expanded for permits not returned. Beginning in 1990, reported harvest is from returned permits only.

h Circle and Central harvests are combined in 1989.

i Other permit holders who fished in District 5 but did not reside in the communities listed.

j Harvests by Fairbanks subsistence permit holders who fished in the Tanana River.

k Other permit holders who fished in District 6 but did not reside in the communities listed.

p Does not include the Coastal District.

Appendix B.2 Estimated summer chum salmon subsistence harvest by fishing district and by community of residence, Yukon Area, 1989-2000. a

Community	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	1990-1994 Average	1995-1999 Average
Hooper Bay	2,293 b			12,900	16,106	10,556	13,374	15,870	12,310	261	10,146	9,301	13,187 c	10,392
Scammon Bay	48 b			3,795	4,692	4,347	3,986	6,365	3,401	1,101	3,315	3,876	4,278 c	3,634
Coastal District Subtotal	2,341			16,695	20,798	14,903	17,360	22,235	15,711	1,362	13,461	13,177	17,465	14,026
Sheldon Point	4,314	1,458	2,226	1,415	2,362	1,941	2,979	2,634	2,603	1,872	1,343	3,309	1,860	2,286
Alakanuk	12,108	7,265	8,058	9,951	8,935	5,947	10,538	6,171	7,443	5,643	3,808	6,259	8,895	6,721
Ennonak	22,985	15,215	8,401	12,296	15,568	13,060	11,696	6,097	12,399	9,558	10,310	8,338	14,166	10,012
Kosik	13,437	13,061	9,105	9,577	7,121	11,197	9,777	12,387	4,803	9,815	4,708	6,173	10,188	8,298
District 1 Subtotal	52,844	36,999	27,790	33,239	33,986	32,145	34,990	27,269	27,248	28,888	20,169	24,079	35,116	27,317
Mountain Village	15,869	9,950	4,743	7,864	10,505	3,938	10,554	9,285	11,310	9,596	10,099	7,074	7,400	10,161
Pikas Point	4,176	1,438	1,452	759	1,461	1,103	1,665	1,619	747	1,302	849	1,728	1,247	1,238
St. Marys	8,948	8,077	7,832	7,796	5,925	10,128	5,950	6,736	8,874	9,047	6,762	8,094	7,952	7,472
Pilot Station	6,783	6,698	4,634	6,236	5,641	5,450	4,427	6,355	4,532	5,042	5,265	5,223	5,732	5,124
Marshall	3,927	2,290	2,042	2,076	1,745	2,288	4,594	4,431	1,508	1,293	1,212	3,212	2,088	2,608
District 2 Subtotal	39,703	28,453	20,703	24,731	25,297	22,907	27,190	28,426	26,971	26,280	24,137	25,331	24,418	26,601
Rustian Mission	2,229	2,146	837	3,331	1,838	801	3,653	3,554	585	702	616	1,318	1,791	1,822
Holy Cross	1,753	857	1,028	1,001	1,517	1,479	948	1,700	487	269	204	569	1,176	734
Shageluk	8,842	6,518	3,680	5,267	4,183	6,212	7,542	6,114	9,244	5,501	4,869	1,800	5,172	6,654
District 3 Subtotal	12,824	9,521	5,545	9,599	7,538	8,492	12,143	11,368	10,316	6,472	5,748	3,687	8,139	9,209
Lower Yukon River Total	105,371	74,973	54,038	67,569	66,821	63,544	74,323	67,083	64,535	59,640	50,064	53,097	67,676	63,127
Anvik	410	2,032	876	1,142	1,735	907	9	165	6,306	2,139	848	425	1,338	1,897
Grayling	14,570	1,430	8,094	3,605	1,137	1,418	3,385	587	2,446	4,032	4,126	474	3,137	2,915
Kallag	632	6,956	2,287	1,204	1,116	3,683	139	31	73	175	625	169	3,049	209
Niako	200	502	159	889	15	975	228	1,003	1,115	3,518	1,945	377	508	1,362
Koyukuk	381	283	2,326	1,130	230	2,039	315	41	739	1,819	197	204	1,202	622
Galena	6,216	1,760	3,493	3,232	2,477	1,198	1,954	3,902	4,575	2,333	1,688	820	2,432	2,890
Ruby/Kokhtres	1,844	351	1,352	2,420	1,459	4,586	4,445	2,016	3,266	2,251	1,697	1,233	2,034	2,739
District 4 Yukon River Subtotal (Excluding the Koyukuk River)	24,253	13,314	18,587	13,622	8,169	14,806	10,475	7,765	17,540	16,267	11,126	3,702	13,700	12,635
Huslia	10,005	7,368	7,857	13,670	8,343	6,014	4,855	2,372	840	449	1,192	745	8,650	1,948
Hughes	3,687	509	1,257	1,625	827	1,581 d	2,448	1,411	1,579	334	577	1,079	1,160	1,270
Alakaket	2,915 f	5,247	6,451	6,368	2,651	4,693 d	6,396	4,668	3,916	901	2,245	1,520	5,062	3,625
Alatna	- f	72	962	490	52	365 d	140	209	145	13	99	0	388	121
Bettles	75	24	155	37	34	45	740	0	210	82	100	0	59	226
Koyukuk River Subtotal	16,682	13,220	16,682	22,190	11,907	12,698	14,609	8,660	6,690	1,779	4,213	3,344	15,339	7,180
District 4 Subtotal	40,935	26,534	35,269	35,812	20,076	27,504	25,084	16,425	24,230	18,046	15,339	7,046	29,039	19,825

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Appendix B.2. (page 2 of 2)

Community	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	1990-1994 Average	1995-1999 Average
Tanana	7,766	5,905	2,779	4,553	4,245	7,022	3,660	5,190	2,526	1,966	1,214	2,848	4,901	2,311
Rampart	28	58	20	4,494	1,489	559	1,168	1,188	738	19	60	47	1,324	635
Fairbanks g h	0	25	1,068	706	465	360	722	2,958	424	57	346	275	525	901
Stevens Village	2,375	1,671	1,385	460	653	459	158	530	191	171	26	50	926	215
Beaver	124	108	2,355	12	134	655	36	572	2	15	91	7	653	143
Fort Yukon j	1,760	145	11,974	1,700	3,830	2,043	998	26	134	30	0	0	3,938	238
Circle h	361 k	1,262	51	265	83	98	70	271	287	1	60	109	352	132
Central h	- k	5	0	91	2	8	2	53	25	1	0	1	21	16
Eagle h	547	361	607	23	32	38	57	105	17	62	271	121	212	100
Other h m		187	32	291	24	21	232	616	130	2	42	51	111	204
District 5 Yukon River Subtotal (Excluding Chandalar/Black Rivers)	12,951	9,727	20,271	12,595	10,957	11,263	7,103	11,509	4,444	2,314	2,110	3,509	12,963	5,496
Venelle	30	0	3,393	0	129	567	552	0	76	0	168	0	818	159
Chalkytleik	0	90	500	17	0	0	0	0	0	0	0	132	121	0
Chandalar/Black Rivers Subtotal	30	90	3,893	17	129	567	552	0	76	0	168	132	939	159
District 5 Subtotal	12,981	9,817	24,164	12,612	11,086	11,830	7,655	11,509	4,520	2,314	2,278	3,641	13,902	5,655
Marley h	2,457	2,250	1,716	850	1,310	1,405	1,657	1,219	576	211	272	240	1,506	787
Minto h	1,425	500	748	625	367	509	1,320	1,421	1,056	148	173	3	550	824
Nenana h	3,986	1,383	1,499	6,372	5,019	1,352	5,043	4,411	1,899	5,041	1,894	775	3,125	3,658
Fairbanks h n	0	152	1,096	1,342	97	3,693	3,528	392	271	604	315	90	1,276	1,022
Other h p	0	0	10	315	0	67	113	43	22	0	0	3	78	36
District 6 Tanana River Subtotal	7,868	4,285	5,069	9,504	6,793	7,026	11,661	7,486	3,824	6,004	2,654	1,111	6,535	6,326
Upper Yukon River Total	81,784	40,636	64,502	57,928	37,955	46,360	44,400	35,420	32,574	26,364	20,269	11,798	49,476	31,805
Alaska, Yukon River Total r	167,155	115,609	119,540	125,497	104,776	109,904	118,723	102,503	97,109	86,004	70,323	64,895	117,152	94,932
Alaska, Yukon Area Total	169,496	115,609	119,540	142,192	125,574	124,807	136,083	124,738	112,820	87,366	83,784	76,072	134,617	105,958

a Historic estimated subsistence harvests are available in each year's respective Yukon Area Annual Management Report (1961 to 1999). Beginning in 1988 subsistence salmon harvest estimates have been generated from a stratified random sample of village households. Estimates include test fish catches given away. District 4 summer chum salmon subsistence harvest estimates prior to 1988 and Districts 5 and 6 prior to 1989 included commercially caught summer chum salmon carcasses retained for subsistence use. Beginning in 1988 and 1989, efforts were made to exclude commercial carcasses from subsistence harvest estimates.

Blacks indicate harvest information was not collected.

b The community was not surveyed, harvest estimates were calculated from calendar and post card replies.

c Average harvest includes 1992, 1993 and 1994.

d Due to floods in 1994, Hughes, Alakaket, and Alatra were not surveyed. The 1994 summer chum salmon harvest is estimated based on a five-year-average, 1989-1993.

f Alatra and Alakaket harvests are combined in 1989.

g Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

h In 1988 and 1989, permit and household interview data were expanded for permits not returned. Beginning in 1990, reported harvest is from returned permits only.

i Includes Birch Creek except in 1990 and 1991. A harvest of one summer chum salmon was estimated in 1997.

k Circle and Central harvests are combined in 1989.

m Other permit holders who fished in District 5 but did not reside in the communities listed.

n Harvests by Fairbanks subsistence permit holders who fished in the Tanana River.

p Other permit holders who fished in District 6 but did not reside in the communities listed.

r Does not include the Coastal District.

Appendix B.3 Estimated fall chum salmon subsistence harvest by fishing district and by community of residence, Yukon Area, 1989-2000. a

Community	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	1990-1994 Average	1995-1999 Average
Hoopers Bay Scammon Bay	146 b 10 b			127 79	113 7	284 63	207 147	392 0	0 0	0 34	0 204	78 11	175 c 50 c	120 49
Coastal District Subtotal	156			206	120	347	354	392	0	34	204	89	224	169
Sheldon Point	586	102	84	490	158	25	256	21	337	266	115	105	172	199
Alakanuk	430	267	193	401	182	73	631	100	900	665	568	505	223	571
Emmonak	840	2,353	2,027	1,628	1,507	3,414	1,614	1,501	1,039	807	1,849	1,165	2,191	1,374
Kotlik	3,058	2,613	1,631	2,697	5,923	1,348	2,197	2,525	856	1,365	3,980	3,519	2,842	2,185
District 1 Subtotal	4,914	5,335	3,935	5,215	7,770	4,887	4,698	4,147	3,132	3,163	6,502	5,294	5,429	4,328
Mountain Village	4,641	1,566	1,473	1,052	1,113	797	1,347	1,366	2,696	2,031	1,969	313	1,200	1,882
Pikas Point	275	150	610	77	268	294	99	603	178	233	53	5	280	233
St. Marys	1,695	806	1,592	2,356	440	1,062	542	658	310	416	722	255	1,251	530
Pilot Station	1,872	1,941	1,062	1,170	1,017	1,527	575	448	1,106	1,162	1,155	852	1,343	899
Marshall	1,532	1,724	891	2,727	256	471	754	2,212	388	640	696	0	1,214	938
District 2 Subtotal	10,015	6,187	5,628	7,382	3,094	4,151	3,317	5,287	4,680	4,482	4,594	1,425	5,288	4,472
Russian Mission	308	878	425	648	172	11	865	587	0	137	100	37	427	338
Holy Cross	711	1,178	190	845	1,066	665	681	1,814	420	1,095	239	523	789	850
Shageluk	4	0	0	865	211	186	126	305	367	329	76	38	252	241
District 3 Subtotal	1,023	2,056	615	2,358	1,449	862	1,672	2,706	787	1,561	415	598	1,468	1,426
Lower Yukon River Total	15,952	13,578	10,178	14,956	12,313	9,900	9,687	12,140	8,599	9,206	11,511	7,317	12,185	10,229
Anvik	168	583	452	864	420	155	289	457	514	388	126	175	501	351
Grayling	830	1,405	3,616	2,993	2,083	811	1,155	1,759	1,531	648	1,370	284	2,182	1,293
Kallag	1,654	2,327	2,834	2,522	704	630	644	1,049	1,142	499	764	180	1,803	820
Nulato	2,436	3,546	1,637	1,910	571	1,109	1,137	2,299	697	367	2,338	0	1,755	1,368
Koyukuk	2,460	860	2,761	2,817	2,052	1,049	814	2,458	1,954	1,583	1,544	239	1,908	1,671
Gallena	6,436	3,202	5,525	2,393	3,255	3,963	3,202	6,620	3,370	1,915	1,932	564	3,669	3,408
Ruby/Kokines	6,599	3,352	2,856	4,499	1,085	5,553	4,695	561	2,195	2,427	907	64	3,469	2,157
District 4 Yukon River Subtotal (Excluding the Koyukuk River)	20,583	15,275	19,681	18,028	10,170	13,270	11,916	15,203	11,403	7,827	8,981	1,516	15,285	11,066
Huslia	1,728	846	411	1,286	258	55	1,035	298	10	0	89	35	571	286
Hughes	260	70	270	325	169	0 d	263	274	51	60	84	157	167	146
Alakokot	1,969 f	2,470	475	1,452	233	0 d	260	961	270	11	20	36	926	304
Alatna	- f	580	38	127	2	0 d	0	0	0	0	0	15	149	0
Bettles	0	0	0	14	0	0	583	50	0	0	0	0	3	127
Koyukuk River Subtotal	3,957	3,966	1,194	3,204	662	55	2,141	1,563	331	71	193	243	1,816	864
District 4 Subtotal	24,540	19,241	20,875	21,232	10,832	13,325	14,057	16,766	11,734	7,898	9,174	1,759	17,101	11,930

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Community	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	1990-1994 Average	1995-1999 Average
Tanana	40,845	41,145	40,868	19,365	23,103	34,681	14,409	21,420	25,058	24,956	22,305	9,384	31,832	21,630
Rampart	2,472	10,818	5,801	5,701	3,272	1,007	1,403	896	646	100	4,324	0	5,320	1,474
Fairbanks g h	7	82	2,022	2,491	930	2,870	2,184	2,727	491	96	681	8	1,679	1,236
Stevens Village	6,633	3,857	2,481	150	862	45	3,194	991	1,585	1,076	20	10	1,479	1,373
Beaver	7,242	757	7	361	692	2,069	1,231	9	243	409	16	0	777	382
Ft. Yukon j	27,790	11,627	7,467	2,284	2,380	6,827	9,196	8,144	6,119	3,035	9,702	355	6,117	7,239
Circle h	4,478 k	6,639	6,340	6,279	349	4,581	5,102	5,308	3,707	37	2,722	0	4,838	3,375
Central h	- k	165	73	100	0	0	0	132	0	0	0	0	68	26
Eagle h	11,557	8,027	7,985	5,630	2,070	8,263	13,115	14,916	14,488	543	11,292	32	6,395	10,871
Other h m		529	100	0	1,750	0	830	505	421	50	65	1	476	374
<i>District 5 Yukon River Subtotal (Excluding Chandalar/Black Rivers)</i>	101,024	83,646	73,144	42,361	35,408	60,343	50,664	55,048	52,758	30,302	51,127	9,790	58,980	47,960
Venetie	7,977	5,377	758	3,066	7,881	4,302	6,085	7,195	1,564	658	2,011	130	4,277	3,503
Chalkyitsik	3,000	1,490	100	274	475	1,751	845	1,230	936	433	442	0	818	777
<i>Chandalar/Black Rivers Subtotal</i>	10,977	6,867	858	3,340	8,356	6,053	6,930	8,425	2,500	1,091	2,453	130	5,095	4,280
<i>District 5 Subtotal</i>	112,001	90,513	74,002	45,701	43,764	66,396	57,594	63,473	55,258	31,393	53,580	9,920	64,075	52,260
Manley h	21,087	25,860	13,243	7,010	3,215	13,722	20,272	10,662	5,887	4,411	5,172	0	12,610	9,281
Minto h	2,005	3,652	5,276	3,017	301	1,419	4,782	4,381	2,361	505	781	2	2,733	2,562
Nenana h	25,340	12,464	17,932	13,253	5,929	11,201	15,500	14,207	3,799	6,781	5,619	8	12,156	9,181
Fairbanks h n	0	309	1,671	1,394	56	5,006	6,384	5,736	4,031	960	1,630	0	1,687	3,748
Other h p	10,222	2,283	2,347	1,039	352	2,249	2,230	1,481	3,472	1,713	2,269	300	1,654	2,233
<i>District 6 Tanana River Subtotal</i>	58,654	44,568	40,469	25,713	9,853	33,597	49,168	36,467	19,550	14,370	15,471	310	30,840	27,005
Upper Yukon River Total	195,195	154,322	135,346	92,646	64,449	113,318	120,819	116,726	86,542	53,661	78,225	11,989	112,016	91,195
Alaska, Yukon River Total q	211,147	167,900	145,524	107,602	76,762	123,218	130,506	128,866	95,141	62,867	89,736	19,306	124,201	101,423
Alaska, Yukon Area Total	211,303	167,900	145,524	107,808	76,882	123,565	130,860	129,258	95,141	62,901	89,940	19,395	124,426	101,592

a Historic estimated subsistence harvests are available in each year's respective Yukon Area Annual Management Report (1961 to 1999). Beginning in 1988 subsistence salmon harvest estimates have been generated from a stratified random sample of village households. Estimates include test fish catches given away. Blanks indicate harvest information was not collected.

b The community was not surveyed, harvest estimates were calculated from calendar and post card replies.

c Average harvest includes 1992, 1993 and 1994.

d Due to floods in 1994, Hughes, Allakaket, and Alatna were not surveyed and the estimated harvest of fall chum salmon was zero.

f Alatna and Allakaket harvests are combined in 1989.

g Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

h In 1988 and 1989, permit and household interview data were expanded for permits not returned. Beginning in 1990, reported harvest is from returned permits only.

j Includes Birch Creek except in 1990 and 1991. A harvest of zero fall chum salmon has been estimated in all years surveyed.

k Circle and Central harvests are combined in 1989.

m Other permit holders who fished in District 5 but did not reside in the communities listed.

n Harvests by Fairbanks subsistence permit holders who fished in the Tanana River.

p Other permits holders who fished in District 6 but did not reside in the communities listed.

q Does not include the Coastal District.

Appendix B.4 Estimated coho salmon subsistence harvest by fishing district and by community of residence, Yukon Area, 1989-2000. a

Community	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	1990-1994 Average	1995-1999 Average
Hooper Bay	211 b			28	0	1	48	92	0	145	68	218	10 c	71
Scammon Bay	2 b			31	40	80	104	0	0	204	0	4	50 c	62
Coastal District Subtotal	213			59	40	81	152	92	0	349	68	222	60	132
Sheldon Point	487	78	35	441	78	52	419	138	51	229	51	5	137	178
Aikanuk	334	158	391	968	138	94	658	103	882	292	108	84	349	409
Emmonak	1,259	1,283	801	868	196	959	594	594	356	696	525	191	781	531
Kotlik	2,997	1,784	581	3,353	1,931	2,167	689	1,610	534	954	1,046	787	1,963	967
District 1 Subtotal	5,077	3,301	1,808	5,426	2,343	3,272	2,251	2,445	1,823	2,171	1,730	1,067	3,230	2,084
Mountain Village	2,385	1,754	868	1,971	447	968	921	276	1,089	954	665	376	1,202	781
Pitkas Point	601	52	347	641	349	364	554	691	427	305	302	139	351	456
St. Marys	370	463	1,270	2,130	102	614	154	292	329	290	536	117	916	320
Pilot Station	553	553	300	477	811	811	1,258	323	323	413	249	1,708	822	497
Marshall	1,304	2,107	259	1,545	320	1,124	272	958	256	335	1,041	11	1,071	572
District 2 Subtotal	5,039	6,344	3,297	6,587	1,695	3,881	2,142	3,475	2,424	2,297	2,793	2,351	4,361	2,626
Russian Mission	20	688	396	1,148	152	55	891	255	10	233	542	24	488	386
Holy Cross	517	338	944	105	88	171	0	0	20	100	62	70	329	36
Shageluk	0	0	0	296	39	137	0	189	736	67	6	0	94	200
District 3 Subtotal	537	1,028	1,340	1,549	279	363	891	444	766	400	610	94	911	622
Lower Yukon River Total	10,653	10,671	6,445	13,562	4,317	7,516	5,284	6,364	5,013	4,868	5,133	3,512	8,502	5,332
Anvik	40	236	347	202	115	95	10	44	24	20	282	0	199	76
Grayling	969	10	1,363	859	164	36	97	236	1,055	133	201	372	486	344
Kaitag	792	501	1,280	2,105	334	245	426	298	60	71	333	110	889	238
Nulato	276	845	75	435	37	27	25	149	444	34	170	60	284	164
Koyukuk	110	162	307	1,877	70	305	33	476	345	421	295	138	544	314
Galeana	415	572	422	1,368	124	803	275	780	1,002	322	123	71	664	500
Ruby/Kokinas	1,069	974	410	1,299	308	1,957	607	376	474	1,459	620	173	990	707
District 4 Yukon River Subtotal (Excluding the Koyukuk River)	3,671	3,300	4,184	8,175	1,152	3,468	1,473	2,359	3,404	2,460	2,024	924	4,056	2,344
Huslia	150	235	150	233	9	47	307	18	50	128	15	132	135	104
Hughes	91	43	9	21	3	0 d	153	51	250	5	10	12	15	94
Alakaket	118	31	25	0	3	0 d	0	39	50	0	0	0	12	18
Alaina	0	5	83	0	0	0 d	0	0	0	0	0	0	18	0
Bettles	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Koyukuk River Subtotal	359	314	267	254	15	47	461	108	350	133	25	144	179	215
District 4 Subtotal	4,030	3,614	4,451	8,429	1,167	3,515	1,934	2,467	3,754	2,593	2,049	1,068	4,235	2,559

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Appendix B.4. (page 2 of 2)

Community	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	1990-1994 Average	1995-1999 Average
Tanana	5,516	8,580	4,448	11,406	5,576	2,567	2,154	8,110	3,045	2,572	3,989	4,826	6,519	3,574
Rampart	87	591	58	75	38	99	0	75	34	20	126	0	172	37
Fairbanks f g	0	5	8	34	0	25	16	42	26	11	0	2	14	19
Stevens Village	208	470	0	20	0	0	1	2	1	63	0	0	100	13
Beaver	774	172	1	388	135	10	20	7	0	0	0	0	143	5
Fort Yukon h	406	727	380	341	5	903	4	157	251 j	39	124	129	483	115
Circle g	1	201	5	54	10	30	0	0	210	0	0	0	60	42
Central g	0	5	0	0	0	0	0	0	0	0	0	0	1	0
Eagle g	0	0	0	3	85	0	1	1	2	132	0	0	18	27
Other g j	165	450	12	0	0	0	7	0	0	2	2	30	92	2
District 5 Yukon River Subtotal (Excluding Chandalar/Black Rivers)	7,159	11,210	4,912	12,331	5,949	3,714	2,205	6,324	3,569	2,839	4,241	4,997	7,603	3,836
Venelle	2	348	12	45	135	4	0	284	7	0	0	0	109	54
Chalkyitsik	20	4	7	0	0	450	0	0	7	0	0	0	93	1
Chandalar/Black River Subtotal	26	352	19	45	135	460	0	284	14	0	0	0	202	56
District 5 Subtotal	7,187	11,562	4,931	12,376	5,984	4,174	2,205	6,588	3,583	2,839	4,241	4,997	7,805	3,891
Manley g	5,310	7,574	8,381	4,725	1,535	10,410	7,395	2,482	3,236	2,382	3,244	2,180	6,121	3,740
Minto g	1,170	818	526	614	300	2,616	338	1,223	384	31	0	3	975	391
Nenana g	7,593	7,381	10,171	8,895	1,314	9,387	7,142	7,883	5,147	3,519	4,023	1,767	7,430	5,543
Fairbanks g k	0	66	2,501	2,281	0	2,103	3,076	2,314	1,230	786	868	0	1,390	1,655
Other g m	4,769	1,774	2,002	1,039	1,155	1,973	861	1,011	1,618	774	1,259	1,200	1,589	1,103
District 6 Tanana River Subtotal	18,841	17,613	21,581	17,554	4,304	20,489	18,802	14,893	11,595	7,472	9,394	5,150	17,504	12,431
Upper Yukon Area Total	30,058	32,789	30,943	38,359	11,455	34,176	22,941	23,948	18,932	12,904	15,684	11,205	29,545	18,882
Alaska, Yukon River Total n	40,711	43,460	37,388	51,921	15,772	41,094	28,225	30,312	23,945	17,772	20,817	14,717	38,047	24,214
Alaska, Yukon Area Total	40,924	43,460	37,388	51,980	15,812	41,775	28,377	30,404	23,945	18,121	20,885	14,939	38,107	24,346

a Historic estimated subsistence harvests are available in each year's respective Yukon Area Annual Management Report (1961 to 1999). Beginning in 1988 subsistence salmon harvest estimates have been generated from a stratified random sample of village households. Estimates include test fish catches given away. Blanks indicate harvest information was not collected.

b The village was not surveyed, harvest estimates were calculated from calendar and post card replies.

c Average harvest includes 1992 and 1993, 1994.

d Due to floods in 1994, Hughes, Alakaket, and Alana were not surveyed and the estimated harvest of coho salmon was zero.

e Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

f In 1989, permit and household interview data were expanded for permits not returned. Beginning in 1990, reported harvest is from returned permits only.

g Includes Birch Creek except in 1990 and 1991. A harvest of three coho salmon was estimated in 1997.

h Other permit holders who fished in District 5 but did not reside in the communities listed.

i Harvests by Fairbanks subsistence permit holders who fished in the Tanana River.

j Other permits holders who fished in District 6 but did not reside in the communities listed.

k Does not include the Coastal District.

Appendix B.5. Personal use salmon harvests taken under authority of a permit, Tanana River drainage, 1987-2000. a

Subdistrict 6-A Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			Coho
				Chinook	Summer Chum	Fall Chum	
1987	0	0	0			0	
1988	1	1	0	0	0	0	0
1989	1	1	1	0	4	0	0
1990	1	1	0	0	0	0	0
1991	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0
1997 b	0	0	0	0	0	0	0

Subdistrict 6-B Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			Coho
				Chinook	Summer Chum	Fall Chum	
1987	0	0	0			0	
1988	1	1	1	306	60	40	22
1989	1	1	1	56	220	0	0
1990	4	4	3	9	12	40	35
1991	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0
1997 b	0	0	0	0	0	0	0

Subdistrict 6-C Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			Coho
				Chinook	Summer Chum	Fall Chum	
1987	132 c	-	60 d			3,316	2,465
1988	208	162	120	317	1,182	2,074	1,125
1989	175	160	112	397	991	1,770	731
1990	152	144	102	442	918	1,353	1,120
1991 f	0	0	0	0	0	0	0
1992 f	0	0	0	0	0	0	0
1993	133	131	79	426	674	163	0
1994 f	0	0	0	0	0	0	0
1995	139	138	91	399	780	863	417
1996	129	125	73	215	905	356	198
1997	112	109	61	313	391	284	350
1998	103	101	52	357	84	2	9
1999 g	103	103	67	331	382	261	147
2000	70	69	16	75	30	1	0
Five Year Average							
1995-1999	117	115	69	323	508	353	224

-Continued-

Upper Tanana River Personal Use Salmon Fishery

Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0
1991 h	0	0	0	0	0	0	0

- a Personal use fishery during 1987 applied to nonrural residents harvesting only fall chum salmon. Beginning in 1988, nonrural personal use fishing applied to all salmon species and reported harvest is from returned permits only. Effective July 1, 1990 all Alaskan residents became eligible for subsistence fishing permits. In 1993 the Board established the Fairbanks Nonsubsistence Area (FNA), this designated fishermen residing in the area as personal use harvesters. In 1994 a Superior Court decision invalidated the FNA and subsistence regulations applied. In 1995 the Board amended the FNA to apply personal use regulations to all fishermen fishing in the area. Dashes in the table indicate the information is not available.
- b After 1997 the regulations did not provide for a personal use fishery in these areas.
- c Includes 60 former subsistence fishermen who were reissued personal use permits to fish for fall chum salmon
- d Some fishing families used both subsistence and personal use permits.
- f From July 1, 1990 through 1992, and in 1994, the regulations did not provide for a personal use fishery in this area.
- g Does not include four whitefish and sucker fishery permit holders, two of which fished, that reported a total harvest of one fall chum and six coho salmon in 1999.
- h After July 1, 1991 the regulations did not provide for a personal use salmon fishery in this area.

Appendix B.6. Subsistence salmon harvests taken under authority of a permit in portions of District 5, Yukon Area, 1974-2000. a

Yukon River "Bridge" Area Subsistence Salmon Fishery b							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum c	Fall Chum c	Coho
1974	29	-	-	591	-	1,857	1,271
1975	19	-	-	727	-	778	70
1976	28	-	18	531	-	974	-
1977	38	-	-	467	-	2,567	-
1978	57	-	-	1,333	-	9,735	-
1979	55	-	41	2,194	-	12,374	-
1980	70	-	67	1,350	-	6,488	36
1981	57	-	24	1,095	-	12,034	-
1982	64	-	44	1,935	-	11,328	20
1983	68	-	46	2,672	-	15,059	-
1984	67	-	54	4,676	-	27,869	399
1985	55	-	42	2,618	-	21,832	33
1986	76	-	58	3,827	-	18,690	759
1987	16	-	14	1,818	2,091	7,631	6
1988	24	21	18	1,747	2,097	3,183	606
1989	26	20	13	2,483	574	1,157	309
1990	26	25	16	2,033	3,493	1,109	455
1991	52	46	34	2,529	1,295	3,953	20
1992	45	42	33	2,241	975	2,491	34
1993	49	47	36	3,767	492	2,915	16
1994	50	49	36	3,073	384	2,911	25
1995	59	59	39	3,253	954	2,244	59
1996	47	45	31	1,157	3,475	2,727	42
1997	44	42	26	1,588	683	491	26
1998	48	47	31	1,685	103	156	15
1999	66	64	47	1,653	356	701	2
2000	54	52	33	1,607	324	8	32
Five Year Average							
1995-1999	53	51	35	1,867	1,114	1,264	29
Ten Year Average							
1990-1999	49	47	33	2,298	1,221	1,970	69

Upper Yukon River Subsistence Salmon Fishery d							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum c	Fall Chum c	Coho
1979	75	-	6	4,063	-	30,475	114
1980	48	-	39	3,649	-	18,477	6
1981	71	-	51	4,510	-	38,333	-
1982	60	-	61	3,833	-	15,432	-
1983	53	-	52	2,831	-	23,708	-
1984	58	-	54	2,543	-	21,675	17
1985	59	-	36	2,419	-	19,059	2
1986	40	-	52	4,148	-	20,701	43
1987	51	51	58 f	3,602	2,495	27,369	0
1988	58	57	50	2,783	2,134	9,078	101
1989	59	56	42	1,186	68	7,515	1
1990	81	75	54	3,746	1,629	14,992	206
1991	70	69	48	3,219	658	14,898	5
1992	85	79	54	2,984	409	12,009	57
1993	79	79	49	1,910	118	2,419	95
1994	79	76	51	3,093	145	12,844	30
1995	87	87	53	3,626	129	19,047	1
1996	86	84	51	3,458	528	20,861	1
1997	98	93	60	3,148	393	18,616	212
1998	101	95	54	3,562	55	630	132
1999	119	116	71	3,404	364	14,079	0
2000	121	118	47	1,806	233	33	0
Five Year Average							
1995-1999	98	95	58	3,440	294	14,647	69
Ten Year Average							
1990-1999	89	85	55	3,215	443	13,040	74

a Prior to 1988 the reported harvest was expanded for permits not returned. Beginning in 1988, reported harvest was expanded. Dashes in the table indicate the information is not available.

b That portion of the Yukon River drainage from Hess Creek to Dall River.

c Summer chum and fall chum salmon undifferentiated from 1974-1986.

d That portion of the Yukon River drainage from Twenty-Two Mile Slough, above the village of Fort Yukon, to the United States/Canadian border.

f Some fishermen reporting harvests did not have permits.

Appendix B.7. Subsistence salmon harvests taken under authority of a permit, Tanana River drainage, 1973-2000. a

Subdistrict 6-A Subsistence Salmon Fishery

Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1988 b	28	24	18	845	1,389	9,165	3,455
1989 b, c	29	28	24 d	651	1,918	25,266	5,292
1990 c	42	36	26	1,369	2,250	27,957	8,408
1991	45	41	31	420	1,716	17,472	8,486
1992	38	35	26	508	450	5,999	5,028
1993 c	42	41	22	331	784	2,617	1,317
1994 f	37	37	30	576	3,793	18,076	12,449
1995	41	38	29	456	4,898	23,522	11,344
1996	31	29	23	209	1,338	18,931	5,959
1997	33	32	21	887	542	10,621	3,703
1998	31	31	19	512	519	4,726	1,526
1999	24	24	14	137	525	5,712	3,464
2000	24	24	12	80	240	0	2,441
Five Year Average 1995-1999	32	31	21	440	1,564	12,702	5,199

Subdistrict 6-B Subsistence Salmon Fishery

Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest g			
				Chinook	Summer Chum	Fall Chum	Coho
1988	75	66	52	3,721	3,167	18,902	18,906
1989 h	60	51	37 d	455	363	18,506	8,453
1990 h	70	58	38	1,234	1,966	16,332	9,155
1991 h	87	78	51	1,796	2,373	21,629	11,971
1992 h	98	89	57	1,587	7,820	18,782	11,409
1993	99	89	38	1,341	5,976	7,166	2,987
1994	102	94	49	1,337	2,035	13,726	12,480
1995	98	98	59	1,322	6,712	25,364	7,458
1996	105	96	59	968	6,138	17,439	8,934
1997	103	95	55	1,825	3,282	8,729	7,892
1998	94	84	46	1,407	5,485	9,573	5,937
1999	83	79	47	1,487	2,129	9,757	5,930
2000	81	79	33	903	869	210	2,709
Five Year Average 1995-1999	97	90	53	1,402	4,749	14,172	7,230

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Subdistrict 6-C Subsistence Salmon Fishery

Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho j
1973	22	-	4	26	771	886	-
1974	70	-	-	38	1,373	1,580	-
1975	36	-	-	32	751	864	-
1976	110	-	-	31	1,314	1,512	-
1977	89	-	33	81	118	607	-
1978	160	-	126	126	2,729	1,188	-
1979	246	-	199	264	2,384	4,459	-
1980	315	-	254	282	3,729	4,059	-
1981	346	-	228	440	3,239	5,770	-
1982	330	-	209	451	2,708	4,521	-
1983	259	-	147	475	2,276	3,830	-
1984	308	-	212	321	3,177	5,134	-
1985	291	-	155	326	2,646	3,937	-
1986	323	-	211	637	4,031	4,437	-
1987 k	217	-	123	531	2,739	0	0
1988	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0
1990 m	19	18	6	15	69	279	50
1991	149	142	98	299	980	1,080	1,089
1992	149	146	90	343	1,234	896	1,116
1993 n	0	0	0	0	0	0	0
1994 p, r	145	142	107	457	1,198	1,600	1,545
Five Year Average 1990-1994							
	92	90	60	223	696	771	760

Upper Tanana River Drainage Subsistence Salmon Fishery

Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1988	0	0	0	0	0	0	0
1989	2	2	2	5	0	39	0
1990	1	1	0	0	0	0	0
1991	8	7	6	0	0	288	14
1992	11	11	4	0	0	36	1
1993	10	10	8	0	0	5	0
1994	7	7	3	0	0	202	15
1995	50	46	12	0	0	88	0
1996	42	39	15	0	10	97	0
1997	61	58	26	0	0	200	0
1998	46	46	17	0	0	71	9
1999	29	29	13	0	0	2	0
2000	41	36	16	0	2	100	0
Five Year Average 1995-1999							
	46	44	17	0	2	92	2

a Prior to 1988, salmon harvests were expanded for permits not returned. Beginning in 1988, the reported harvests were not expanded. Dashes in the table indicate the information is not available.

b Many Subdistrict 6-A fishermen did not obtain a permit in 1988 and 1989.

c Includes salmon given away as part of the department's test fishing project in Manley.

d Includes harvests reported by fishermen who did not have permits.

f Beginning in 1994, a separate Kantishna River drainage permit was required. The Subdistrict 6-A harvest totals include those from the Kantishna River drainage.

g Includes small numbers of salmon harvested and reported on the Tolovana River drainage (Subdistrict 6-B) subsistence pike permit, established in 1993.

h Includes salmon given away as part of the department's test fish project in Nenana.

j Prior to 1988 fall chum and coho salmon were not reported as separate species.

k Personal use fishery established for nonrural residents beginning in July of 1987.

m Some fishermen had both personal use and subsistence permits. The McDowell Decision became effective July 1990, (midway through the season), and stated that all Alaskan residents were eligible subsistence participants.

n Personal use fishery was established for those fishing for salmon in the Fairbanks Nonsubsistence Area, which includes Subdistrict 6-C.

p No personal use permits were issued in 1994 for this area.

r After 1994 subsistence regulations were repealed within the Fairbanks Nonsubsistence Area, which includes Subdistrict 6-C.

Appendix B.8. Estimated number of salmon distributed from test fish projects, Yukon Area, 1992 to 2000. a

	Year	Set Gillnet Test Fish Lower Yukon	Drift Gillnet Test Fish Projects						Test Fish Wheel Projects b					Total
			Mountain Village	Pilot Station	Marshall	Marshall c	Russian Mission c	Kaltag	Galena	Manley	Nenana	Tanana	Fort Yukon	
Chinook Salmon	1992	1,715	-	-	-	-	-	-	-	0	113	-	-	1,828
	1993	1,584	-	471	-	-	-	-	-	0	0	0	-	2,055
	1994	1,985	-	334	-	-	-	-	-	0	0	0	-	2,319
	1995	1,715	1	166	-	-	-	-	2	1	0	0	0	1,885
	1996	1,355	0	0	-	-	-	-	-	0	0	0	0	1,355
	1997	1,825	2	330	-	-	-	-	-	0	0	0	-	2,157
	1998	1,035	8	435	-	-	-	-	-	0	0	0	-	1,478
	1999	1,656	1	359	773	-	-	1	-	0	0	0	-	2,790
	2000	1,344	0	450	1,024	11	23	0	-	-	0	0	-	2,852
Five Year Average 1995 to 1999		1,517	2	258	-	-	-	-	-	0	0	0	-	1,933
Summer Chum Salmon	1992	3,989	-	-	-	-	-	-	-	0	112	-	-	4,101
	1993	4,111	-	2,098	-	-	-	-	-	33	0	0	-	6,242
	1994	7,060	-	2,998	-	-	-	-	-	0	0	0	-	10,058
	1995	6,382	0	1,875	-	-	-	-	57	50	0	0	0	8,364
	1996	7,052	0	276	-	-	-	-	-	0	0	0	0	7,328
	1997	4,539	0	2,420	-	-	-	-	-	0	0	0	-	6,959
	1998	2,290	0	2,209	-	-	-	-	-	0	0	147	-	4,646
	1999	2,717	0	1,636	181	-	-	0	-	0	0	0	-	4,534
	2000	2,499	0	2,141	335	0	0	0	-	-	0	0	-	4,980
Five Year Average 1995 to 1999		4,596	0	1,683	-	-	-	-	-	10	0	29	-	6,366
Fall Chum Salmon	1992	2,462	-	-	-	-	-	-	-	0	110	-	-	2,572
	1993	3,692	-	652	-	-	-	-	-	65	0	0	-	4,409
	1994	2,566	-	1,349	-	-	-	-	-	0	7	1,895	-	5,817
	1995	2,408	523	541	-	-	-	-	199	194	0	1,876	1,570	7,311
	1996	1,421	319	150	-	-	-	-	-	0	0	0	1,081	2,971
	1997	1,466	962	997	-	-	-	-	-	0	0	0	-	3,425
	1998	2,000	664	1,110	-	-	-	-	-	0	0	0	-	3,774
	1999	4,061	1,008	968	0	-	-	483	-	0	0	0	-	6,520
	2000	2,921	269	834	0	0	0	190	-	-	0	0	-	4,214
Five Year Average 1995 to 1999		2,271	695	753	-	-	-	-	-	39	0	375	-	4,800
Coho Salmon	1992	2,557	-	-	-	-	-	-	-	0	0	-	-	2,557
	1993	1,210	-	222	-	-	-	-	-	0	0	0	-	1,432
	1994	2,033	-	786	-	-	-	-	-	0	0	266	-	3,085
	1995	579	559	205	-	-	-	-	0	0	0	164	0	1,507
	1996	755	228	25	-	-	-	-	-	0	0	0	0	1,008
	1997	593	309	283	-	-	-	-	-	0	0	0	-	1,185
	1998	792	567	364	-	-	-	-	-	0	0	0	-	1,723
	1999	649	2	180	0	-	-	70	-	0	0	0	-	901
	2000	949	313	1,705	0	0	0	110	-	-	0	0	-	3,399
Five Year Average 1995 to 1999		674	333	211	-	-	-	-	-	0	0	33	-	1,265

a Dashes indicate test fish project was not in operation.

b Does not include salmon that were accounted for by using the survey or permit methods.

c Chinook salmon radio telemetry project.

Appendix B.9. Estimated pink salmon subsistence harvest by residents of surveyed villages, Yukon Area, 1994 to 2000.

Community	1994 a	1995	1996	1997	1998	1999	2000	Estimated Total		
								Even Years Average	Odd Years Average	1994 to 2000 Average
Hooper Bay	734	326	3,212	265	1,941	99	902	1,697	230	1,068
Scammon Bay	1,319	559	305	0	1,791	527	96	878	362	657
Coastal District	2,053	885	3,517	265	3,732	626	998	2,575	592	1,725
Sheldon's Point	1,388	1	262	1	299	0	0	487	1	279
Alakanuk	54	124	35	33	239	0	38	92	52	75
Emmonak	1,451	5	46	35	145	17	0	411	19	243
Kotlik	1,340	2	100	0	907	15	263	653	6	375
District 1	4,233	132	443	69	1,590	32	301	1,642	78	971
Mountain Village	806	35	611	10	753	0	61	558	15	325
Pitkas Point	163	4	280	101	330	12	114	222	39	143
St. Mary's	850	0	42	4	467	1	54	353	2	203
Pilot Station	32	0	0	0	0	8	6	10	3	7
Marshall	880	6	0	0	0	0	0	220	2	127
District 2	2,731	45	933	115	1,550	21	235	1,362	60	804
Russian Mission	200	0	0	0	211	0	8	105	0	60
Holy Cross	89	0	140	0	150	0	20	100	0	57
Shageluk	0	0	40	0	1,256	0	0	324	0	185
District 3	289	0	180	0	1,617	0	28	529	0	302
Anvik	475	0	0	0	50	0	30	139	0	79
Grayling	451	0	4	0	649	1	0	276	0	158
Kaltag	0	0	0	11	1	1	0	0	4	2
Nulato	4	0	0	0	0	0	0	1	0	1
Koyukuk	4	0	0	23	0	0	0	1	8	4
Galena	61	0	52	0	0	0	0	28	0	16
Ruby	0	0	3	0	0	0	1	1	0	1
Huslia	0	0	0	0	0	0	0	0	0	0
Hughes	0	0	0	0	0	0	0	0	0	0
Allakaket	0	0	0	0	0	0	0	0	0	0
Alatna	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0
District 4	995	0	59	34	700	2	31	446	12	260
Tanana	0	0	0	0	0	0	0	0	0	0
Rampart	0	0	0	0	0	0	0	0	0	0
Stevens Village	0	0	0	0	0	0	0	0	0	0
Birch Creek	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0
Fort Yukon	0	0	0	0	0	0	0	0	0	0
Venetie	0	0	0	0	0	0	0	0	0	0
Chalkyitsik	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	0	0	0
Survey Totals	10,301	1,062	5,132	483	9,189	681	1,593	6,554	742	4,063
CI (95%) b	2,496	635	2,204	290	2,511	621	559			

a Due to floods in 1994, Hughes, Allakaket, and Alatna were not surveyed and the estimated harvest of pink salmon was zero.

b Includes annual 95 percent confidence interval, CI (95%).

Appendix B.10. Households with dogs, number of dogs, and salmon fed to dogs, as estimated in surveyed villages or reported in permit areas, Yukon Area, 1990-2000. a

Districts Survey or Permit	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
1990						
Coastal District Survey	-	-	-	-	-	-
District 1 Survey	-	455	2,859	372	0	3,231
District 2 Survey	-	775	3,278	415	3,665	7,358
District 3 Survey	-	272	8,248	120	166	8,534
District 4 Survey	-	1,385	91,256	6,911	2,511	100,678
District 5 Survey	-	1,286	5,697	72,424	9,118	87,239
District 5 Permit b	-	-	-	-	-	-
District 6 Permit	-	-	-	-	-	-
Totals	0	4,173	111,338	80,242	15,460	207,040
1991						
Coastal District Survey	-	-	-	-	-	-
District 1 Survey	-	349	30	0	16	46
District 2 Survey	-	543	723	652	874	2,249
District 3 Survey	-	145	1,747	150	0	1,897
District 4 Survey	-	1,660	169,866	903	591	171,360
District 5 Survey	-	1,520	28,518	54,657	2,754	85,929
District 5 Permit b	49	400	-	-	-	11,522
District 6 Permit	220	1,980	-	-	-	19,479
Totals	269	6,597	200,884	56,362	4,235	292,482
1992						
Coastal District Survey	133	513	659	0	0	659
District 1 Survey	262	617	512	1,000	153	1,665
District 2 Survey	285	971	694	247	2,237	3,178
District 3 Survey	113	507	4,893	74	37	5,004
District 4 Survey	436	2,065	139,513	6,950	3,323	149,786
District 5 Survey	323	1,577	12,897	38,529	14,529	65,955
District 5 Permit b	52	492	-	-	-	7,026
District 6 Permit	255	2,270	-	-	-	18,115
Totals	1,859	9,012	159,168	46,800	20,279	251,388
1993						
Coastal District Survey	150	391	0	0	0	0
District 1 Survey	280	690	654	70	22	746
District 2 Survey	232	880	794	260	670	1,724
District 3 Survey	118	447	2,671	734	162	3,567
District 4 Survey	435	1,645	44,793	3,905	579	49,277
District 5 Survey	348	1,840	5,490	38,888	5,147	49,525
District 5 Permit b	54	1,031	-	-	-	1,133
District 6 Permit	143	1,857	-	-	-	1,547
Totals	1,760	8,781	54,402	43,857	6,580	107,519
1994						
Coastal District Survey	161	367	1,287	0	0	1,287
District 1 Survey	288	819	267	144	384	795
District 2 Survey	286	1,074	1,066	653	2,470	4,189
District 3 Survey	123	413	5,279	0	162	5,441
District 4 Survey c	427	1,649	92,127	4,720	2,916	99,763
District 5 Survey	355	1,426	10,903	51,674	4,422	66,999
District 5 Permit b	103	534	-	-	-	9,824
District 6 Permit	212	2,269	-	-	-	34,111
Totals	1,955	8,551	110,929	57,191	10,354	222,409
1995						
Coastal District Survey	158	596	2,919	214	0	3,133
District 1 Survey	223	391	531	43	7	581
District 2 Survey	213	677	1,587	436	979	3,002
District 3 Survey	111	347	8,450	265	100	8,815
District 4 Survey	423	1,830	183,386	9,092	1,151	193,629
District 5 Survey	356	1,442	6,222	50,680	2,107	59,009
District 5 Permit b	54	495	-	-	-	17,980
District 6 Permit	103	1,723	-	-	-	50,731
Totals	1,641	7,501	203,095	60,730	4,344	336,880

- Continued -

Districts Survey or Permit	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs ^a
1996						
Coastal District Survey	159	406	0	0	0	0
District 1 Survey	298	682	1,847	250	38	2,135
District 2 Survey	251	1,044	1,460	1,724	1,423	4,607
District 3 Survey	134	513	3,558	0	0	3,558
District 4 Survey	468	1,607	130,575	5,771	1,324	137,670
District 5 Survey	325	1,289	10,155	48,836	5,966	64,957
District 5 Permit b	53	293	-	-	-	14,345
District 6 Permit	176	1,907	-	-	-	43,590
Totals	1,864	7,741	147,595	56,581	8,751	270,862
1997						
Coastal District Survey	174	494	837	0	0	837
District 1 Survey	255	683	103	0	0	103
District 2 Survey	301	1,075	779	498	142	1,419
District 3 Survey	111	492	11,418	400	746	12,564
District 4 Survey	430	1,209	63,850	4,481	3,141	71,472
District 5 Survey	254	1,146	2,943	33,188	2,961	39,092
District 5 Permit b	95	569	-	-	-	19,584
District 6 Permit	156	1,898	-	-	-	12,813
Totals	1,776	7,566	79,930	38,567	6,990	157,884
1998						
Coastal District Survey	185	503	0	0	0	0
District 1 Survey	259	555	1,711	270	0	1,981
District 2 Survey	293	966	682	110	137	929
District 3 Survey	106	394	4,288	32	202	4,522
District 4 Survey	560	1,731	14,468	3,394	1,935	19,797
District 5 Survey	356	1,342	2,029	29,448	2,680	34,157
District 5 Permit b	113	598	-	-	-	1,262
District 6 Permit	136	1,610	-	-	-	22,311
Totals	2,008	7,699	23,178	33,254	4,954	84,959
1999						
Coastal District Survey	163	276	135	0	0	135
District 1 Survey	252	451	254	20	25	299
District 2 Survey	312	982	778	52	1,277	2,107
District 3 Survey	95	374	4,153	50	240	4,443
District 4 Survey	481	1,502	15,546	3,399	1,513	20,458
District 5 Survey	273	1,233	1,436	36,006	3,844	41,286
District 5 Permit b	141	739	-	-	-	11,013
District 6 Permit	107	1,321	-	-	-	13,256
Totals	1,824	6,878	22,302	39,527	6,899	92,997
2000						
Coastal District Survey	215	451	0	0	0	0
District 1 Survey	247	552	1,240	741	0	1,981
District 2 Survey	307	941	467	30	30	527
District 3 Survey	111	374	419	150	70	639
District 4 Survey	441	1,318	4,237	846	329	5,412
District 5 Survey	236	811	1,263	5,972	1,791	9,026
District 5 Permit b d	67	568	-	-	-	317
District 6 Permit d	70	1,327	-	-	-	3,082
Totals	1,694	6,342	7,626	7,739	2,220	20,984
1992-1999 Average						
Coastal District Survey	160	443	730	27	0	756
District 1 Survey	265	611	735	225	79	1,038
District 2 Survey	272	959	980	498	1,167	2,644
District 3 Survey	114	436	5,589	194	206	5,989
District 4 Survey	458	1,655	85,532	5,214	1,985	92,732
District 5 Survey	324	1,412	6,509	40,906	5,207	52,623
District 5 Permit b	83	594	-	-	-	10,271
District 6 Permit	161	1,857	-	-	-	24,559
Totals	1,836	7,966	100,075	47,063	8,644	190,612

^a Beginning in 1993, the estimated number of salmon includes those retained from subsistence and commercial (commercial-related) harvests. Dashes indicate information was not collected.

^b Permit totals do not include the community of Stevens Village.

^c Does not include the villages of Hughes, Allakaket and Alatna which were not surveyed due to a major flood event.

^d Does not include duplicate information from households with more than one permit.

Appendix B.11. Surveyed households which indicated that their subsistence salmon needs were not met, Yukon Area, 1992 to 2000.

Year	Total Number of Households Contacted	Total Number of Responses	Percent of Responses Indicating Needs Were not Met	Percent that Indicated Poor Salmon Returns
1992	870	272	31	7
1993	979	514	53	8
1994	933	345	37	1
1995	1,011	207	20	1
1996	951	230	24	6
1997	915	213	23	6
1998	970	593	61	47
1999	1,024	385	38	18
2000	932	592	64	77 ^a
<hr/>				
Eight Year Average 1992 to 1999	957	345	36	12

^a A different method from prior years was used in 2000 to provide an indication of the quality of the salmon runs by species. The 2000 percentage is a weighted average of chinook, summer chum, fall chum, coho salmon responses from households that indicated poor salmon runs by species contributed to not meeting their needs.

Appendix B.12. Estimated or reported subsistence and personal use harvest of miscellaneous non-salmon fish species, Yukon Area, 1993 to 2000.

	1993	1994	1995	1996	1997	1998	1999	2000	Five Year Average 1995 to 1999
Survey Estimates ^a									
Whitefish	70,479	84,734	58,660	63,610	77,630	70,261	50,748	45,292	64,182
Pike	11,787	28,515	17,646	18,833	29,540	22,459	16,928	9,174	21,081
Sheefish	12,039	17,117	12,186	17,793	19,538	19,159	12,550	6,581	16,245
Survey Reported									
Burbot	316	9,181	4,602	13,654	6,381	6,704	11,545	2,168	8,577
Lamprey	2	2,565	5,122	4,630	2,533	2,580	30,536	785	9,080
Tomcod	2,069	1,875	4,724	4,554	6,088	5,401	2,399	2,999	4,633
Grayling	122	1,559	1,285	1,664	1,600	1,578	1,476	346	1,521
Suckers	67	304	210	191	667	128	104	364	260
Arctic Char	2	174	265	210	131	206	131	32	189
Blackfish	8,810	190,736	233,890	145,752	275,469	302,623	165,252	42,110	224,597
Permit Reported									
Whitefish	3,139	3,509	3,172	5,474	5,157	4,019	3,734	3,205	4,311
Pike	1,150	1,214	1,280	2,113	1,978	793	812	687	1,395
Sheefish	49	361	87	127	190	137	176	85	143
Burbot	66	196	187	105	215	137	101	95	149
Grayling	-	3	10	315	154	55	439	521	195
Suckers	-	68	456	1,156	858	459	986	739	783
Yukon Area Totals									
Whitefish	73,618	88,243	61,832	69,084	82,787	74,280	54,482	48,497	68,493
Pike	12,937	29,729	18,926	20,946	31,518	23,252	17,740	9,861	22,476
Sheefish	12,088	17,478	12,273	17,920	19,728	19,296	12,726	6,666	16,389
Burbot	382	9,377	4,789	13,759	6,596	6,841	11,646	2,263	8,726
Lamprey	2	2,565	5,122	4,630	2,533	2,580	30,536	785	9,080
Tomcod	2,069	1,875	4,724	4,554	6,088	5,401	2,399	2,999	4,633
Grayling	122	1,562	1,295	1,979	1,754	1,633	1,915	867	1,715
Suckers	67	372	666	1,347	1,525	587	1,090	1,103	1,043
Arctic Char	2	174	265	210	131	206	131	32	189
Blackfish	8,810	190,736	233,890	145,752	275,469	302,623	165,252	42,110	224,597

^a Subsistence finfish estimates in surveyed communities is based on a stratified random sample of households as designated for the estimation of subsistence salmon harvests.

APPENDIX C

DETAILED YUKON RIVER SALMON HARVEST ESTIMATES AND RELATED INFORMATION

Appendix C.1. Estimated chinook salmon subsistence harvest by residents of surveyed villages, by harvest stratum, with village and district totals, Yukon Area, 2000. a

Community	Unknown					Does Not Harvest Salmon					Light Harvester					Medium Harvester					Heavy Harvester					Total		Combined																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	N	n	Mean	SE		N	n	Mean	SE		N	n	Mean	SE		N	n	Mean	SE		N	n	Mean	SE		N	n	Total	Est	CI(95%)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

a The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95 percent confidence interval, CI (95%). Dashes indicate indefinable values.

b Due to small sample size and because four out of five surveyed households harvested fish, the mean was overestimating, therefore the median was used to estimate harvest.

Appendix C.2 Estimated summer chum salmon subsistence harvest by residents of surveyed villages, by harvest stratum, with village and district totals, Yukon Area, a

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total		Est	CI(95%)
																					N	n	Total	(+/-)
Hooper Bay	23	7	42.9	29.4	83	2	0.0	0.0	93	21	60.4	17.0	17	13	140.6	19.3	2	2	152.5	0.0	218	45	9,301	3,431
Scammon Bay	10	5	30.0	21.2	24	1	0.0	-	53	15	64.0	13.4	2	2	90.0	0.0	0	0	-	-	89	23	3,876	1,461
Coastal District	33	13	39.3	18.3	107	3	0.0	0.0	146	36	61.7	11.8	19	15	135.3	17.3	2	2	152.5	0.0	307	68	13,177	3,729
Sheldon's Point	5	2	200.0	154.9	6	4	36.3	12.1	23	19	81.7	9.1	4	4	52.5	0.0	0	0	-	-	38	29	3,309	1,579
Alakanuk	22	7	12.1	7.2	44	4	1.5	1.4	77	15	63.3	16.3	9	6	113.8	13.9	0	0	-	-	152	32	6,234	2,504
Emmonak	46	22	3.9	1.8	60	14	6.4	4.4	77	33	57.1	10.6	14	13	131.7	12.2	1	1	332.0	0.0	198	83	7,140	1,724
Kotlik	2	1	0.0	-	26	4	0.0	0.0	55	15	63.4	18.6	9	8	136.0	10.8	2	2	91.0	0.0	94	30	4,897	2,024
District 1	75	32	19.3	10.6	136	26	4.9	2.1	232	82	63.1	7.9	36	31	119.5	6.5	3	3	171.3	0.0	482	174	21,580	3,979
Mountain Village	32	18	11.4	4.0	36	4	15.0	11.2	87	24	53.6	9.1	14	12	98.8	7.0	1	1	115.0	0.0	170	59	7,074	1,776
Pitkas Point	0	0	-	-	8	7	24.6	5.7	13	10	70.9	9.3	6	5	101.6	21.5	0	0	-	-	27	22	1,728	359
St. Mary's	33	16	51.4	12.0	42	3	13.3	12.9	54	13	52.6	18.7	16	16	152.0	0.0	3	3	186.3	0.0	148	51	8,094	2,376
Pilot Station	21	16	13.6	2.9	33	9	3.3	2.8	53	26	39.5	7.2	4	3	148.3	25.8	0	0	-	-	111	54	3,082	807
Marshall	14	8	31.6	15.9	15	4	17.5	9.3	48	11	37.3	9.2	8	7	47.3	7.2	1	0	-	-	86	30	2,877	1,020
District 2	100	58	27.9	4.8	134	27	12.5	5.2	255	84	48.3	5.5	48	43	112.4	4.2	5	4	134.8	0.0	542	216	22,855	3,259
Russian Mission	6	5	20.8	8.1	27	2	0.0	0.0	29	7	33.7	10.0	5	5	39.0	0.0	1	1	20.0	0.0	68	20	1,318	579
Holy Cross	1	0	-	-	16	4	0.0	0.0	39	16	8.3	3.2	6	6	40.8	0.0	0	0	-	-	62	26	569	251
Shageluk	10	4	5.0	3.9	7	5	0.0	0.0	13	10	15.1	4.8	4	3	270.3	72.1	6	4	78.8	14.7	40	26	1,800	608
District 3	17	9	10.3	3.7	50	11	0.0	0.0	81	33	18.5	4.0	15	14	101.4	19.2	7	5	70.4	13.0	170	72	3,687	876
Anvik	3	2	0.0	0.0	15	4	0.0	0.0	16	5	0.0	0.0	6	5	70.8	26.4	1	0	-	-	41	16	425	311
Grayling	1	1	0.0	0.0	11	3	4.0	2.6	21	6	7.0	5.5	15	13	18.8	3.9	0	0	-	-	48	23	474	263
Kaltag	8	5	6.0	2.3	6	3	0.7	0.5	43	12	2.2	1.4	5	5	4.0	0.0	0	0	-	-	62	25	169	125
Nulato	8	5	0.8	0.3	46	4	0.5	0.5	36	10	9.5	5.1	11	11	0.5	0.0	0	0	-	-	101	30	377	367
Koyukuk	3	0	-	-	16	2	1.0	0.9	18	4	0.0	0.0	3	2	2.5	1.4	2	2	90.0	0.0	42	10	204	31
Galena	44	29	1.8	1.0	101	7	0.0	0.0	57	11	0.0	0.0	11	9	38.9	16.6	3	2	105.0	60.6	216	58	820	512
Ruby	11	10	0.0	0.0	45	5	0.0	0.0	14	4	40.5	33.6	3	3	0.0	0.0	4	4	166.5	0.0	77	26	1,233	924
Huslia	9	5	0.0	0.0	60	5	0.0	0.0	21	3	33.3	30.8	6	2	7.5	6.1	0	0	-	-	96	15	745	1,272
Hughes	1	1	0.0	0.0	15	10	8.6	4.8	5	3	20.0	12.6	2	2	0.0	0.0	1	1	850.0	0.0	24	17	1,079	187
Allakaket	12	5	0.0	0.0	27	3	0.0	0.0	15	5	0.0	0.0	5	5	169.4	0.0	3	3	224.3	0.0	62	21	1,520	0
Alatna	0	0	-	-	3	3	0.0	0.0	3	3	0.0	0.0	1	1	0.0	0.0	0	0	-	-	7	7	0	0
Bettles	11	5	0.0	0.0	17	12	0.0	0.0	2	2	0.0	0.0	0	0	-	-	0	0	-	-	30	19	0	0
District 4	111	68	1.2	0.4	362	61	0.6	0.2	251	68	7.8	3.3	68	58	30.3	3.7	14	12	191.7	13.0	806	267	7,046	1,757
Tanana	21	6	0.0	0.0	58	14	0.0	0.0	21	7	14.2	11.6	7	6	16.7	6.3	14	11	173.6	36.8	121	44	2,848	1,123
Rampart	2	0	-	-	9	6	0.0	0.0	3	0	-	-	14	9	3.3	1.7	0	0	-	-	28	15	47	45
Stevens Village	12	4	0.0	0.0	13	3	0.0	0.0	10	3	0.0	0.0	5	4	0.0	0.0	2	2	25.0	0.0	42	16	50	0
Birch Creek	1	0	-	-	8	7	0.0	0.0	6	5	0.0	0.0	0	0	-	-	0	0	-	-	15	12	0	0
Beaver	8	2	0.0	0.0	14	10	0.1	0.1	10	8	0.2	0.0	5	3	0.7	0.4	0	0	-	-	37	23	7	5
Fort Yukon	0	0	-	-	107	6	0.0	0.0	43	6	0.0	0.0	18	14	0.0	0.0	1	0	-	-	169	26	0	0
Venetie	11	2	0.0	0.0	37	4	0.0	0.0	6	3	0.0	0.0	3	2	0.0	0.0	3	3	0.0	0.0	60	14	0	0
Chalkyitsik	2	2	26.5	0.0	33	5	0.0	0.0	3	3	1.3	0.0	3	2	25.0	14.4	0	0	-	-	41	12	132	85
District 5	57	16	0.9	0.0	279	55	0.0	0.0	102	35	3.0	2.4	55	40	4.4	1.2	20	16	124.0	26.0	513	162	3,084	1,128
Survey Totals	393	196	15.0	2.8	1,068	183	2.4	0.7	1,067	338	37.2	2.8	241	201	66.8	2.5	51	42	140.2	10.8	2,820	959	71,429	6,744

a The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95 percent confidence interval, CI (95%). Dashes indicate indefinable values.

Appendix C.3. Estimated fall chum salmon subsistence harvest by residents of surveyed villages, by harvest stratum, with village and district totals, Yukon Area, 2000. a

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total	Est	CI(95%)	
Hooper Bay	23	8	0.0	0.0	83	3	0.0	0.0	93	21	0.4	0.4	17	13	2.0	1.0	2	2	0.0	0.0	218	47	78	83
Scammon Bay	10	5	0.0	0.0	24	2	0.0	0.0	53	15	0.2	0.1	2	2	0.0	0.0	0	0	-	-	89	24	11	18
Coastal District	33	13	0.0	0.0	107	5	0.0	0.0	146	36	0.4	0.2	19	15	1.8	0.9	2	2	0.0	0.0	307	71	89	85
Sheldon's Point	5	2	0.0	0.0	6	4	0.0	0.0	23	19	4.5	1.8	4	4	0.0	0.0	0	0	-	-	38	29	105	83
Alakanuk	22	7	0.0	0.0	44	4	0.0	0.0	77	15	5.6	4.5	9	6	5.0	2.9	0	0	-	-	152	32	476	687
Emmonak	46	22	0.0	0.0	80	14	0.0	0.0	77	33	0.0	0.0	14	13	0.4	0.1	1	1	0.0	0.0	198	83	8	4
Kotlik	2	1	0.0	-	26	4	0.0	0.0	55	15	31.5	16.6	9	8	0.0	0.0	2	2	25.0	0.0	94	30	1,784	1,791
District 1	75	32	0.0	0.0	136	26	0.0	0.0	232	82	9.8	4.2	36	31	1.4	0.7	3	3	16.7	0.0	482	174	2,373	1,920
Mountain Village	32	18	0.0	0.0	36	4	0.0	0.0	87	24	0.5	0.3	14	12	0.0	0.0	1	1	0.0	0.0	170	59	44	51
Pitkas Point	0	0	-	-	8	7	0.0	0.0	13	10	0.0	0.0	6	5	0.8	0.3	0	0	-	-	27	22	5	4
St. Mary's	33	16	2.2	1.6	42	3	0.0	0.0	54	13	2.7	2.0	16	16	2.1	0.0	3	3	0.0	0.0	148	51	255	236
Pilot Station	21	16	0.0	0.0	33	9	0.0	0.0	53	27	0.3	0.2	4	3	0.0	0.0	0	0	-	-	111	55	18	24
Marshall	14	8	0.0	0.0	15	4	0.0	0.0	48	11	0.0	0.0	8	7	0.0	0.0	1	0	-	-	86	30	0	0
District 2	100	58	0.7	0.5	134	27	0.0	0.0	255	85	0.8	0.4	48	43	0.8	0.0	5	4	0.0	0.0	542	217	322	243
Russian Mission	6	5	0.0	0.0	27	3	0.0	0.0	29	7	0.5	0.5	5	5	4.0	0.0	1	1	0.0	0.0	68	21	37	28
Holy Cross	1	0	-	-	16	4	0.0	0.0	39	16	7.5	4.3	6	6	38.3	0.0	0	0	-	-	62	26	523	332
Shageluk	10	4	3.8	2.9	7	5	0.0	0.0	13	10	0.0	0.0	4	3	0.0	0.0	6	4	0.0	0.0	40	26	38	57
District 3	17	9	2.2	1.7	50	12	0.0	0.0	81	33	3.8	2.1	15	14	16.7	0.0	7	5	0.0	0.0	170	73	598	338
Anvik	3	2	0.0	0.0	15	4	0.0	0.0	16	5	0.0	0.0	6	5	29.2	6.9	1	0	-	-	41	16	175	80
Grayling	1	1	0.0	0.0	11	3	0.0	0.0	21	6	7.5	6.3	15	13	8.5	1.8	0	0	-	-	48	23	284	266
Katlap	8	5	0.0	0.0	6	3	0.0	0.0	43	12	0.0	0.0	5	5	0.0	0.0	0	0	-	-	62	25	0	0
Nulato	8	5	0.0	0.0	46	4	0.0	0.0	36	10	0.0	0.0	11	11	0.0	0.0	0	0	-	-	101	30	0	0
Koyukuk	3	0	-	-	16	2	0.0	0.0	18	4	0.0	0.0	3	2	50.0	28.9	2	2	44.5	0.0	42	10	239	170
Galeana	44	29	4.9	2.5	101	7	0.0	0.0	57	11	0.1	0.1	11	9	4.4	1.3	3	2	97.0	56.0	216	58	564	366
Ruby	11	10	0.0	0.0	45	5	0.0	0.0	14	4	0.0	0.0	3	3	0.0	0.0	4	4	16.0	0.0	77	26	64	0
Huslia	9	5	0.0	0.0	60	5	0.0	0.0	21	3	1.6	1.5	6	2	0.0	0.0	0	0	-	-	96	15	35	64
Hughes	1	1	0.0	0.0	15	10	0.0	0.0	5	3	20.0	12.6	2	2	3.5	0.0	1	1	50.0	0.0	24	17	157	124
Allakaket	12	5	3.0	2.3	27	3	0.0	0.0	15	5	0.0	0.0	5	5	0.0	0.0	3	3	0.0	0.0	62	21	36	54
Adina	0	0	-	-	3	3	0.0	0.0	3	3	5.0	0.0	1	1	0.0	0.0	0	0	-	-	7	7	15	0
Bettles	11	5	0.0	0.0	17	12	0.0	0.0	2	2	0.0	0.0	0	0	-	-	0	0	-	-	30	19	0	0
District 4	111	68	2.3	1.0	362	61	0.0	0.0	251	68	1.3	0.6	68	58	7.5	1.5	14	12	39.3	12.0	806	267	1,569	534
Tanana	21	6	0.0	0.0	58	14	0.0	0.0	21	7	0.0	0.0	7	6	0.0	0.0	14	11	670.3	151.0	121	44	9,384	4,146
Rampart	2	0	-	-	9	6	0.0	0.0	3	0	-	-	14	9	0.0	0.0	0	0	-	-	28	15	0	0
Stevens Village	12	4	0.0	0.0	13	3	0.0	0.0	10	3	0.0	0.0	5	4	0.0	0.0	2	2	0.0	0.0	42	16	0	0
Birch Creek	1	0	-	-	8	7	0.0	0.0	6	5	1.6	0.6	0	0	-	-	0	0	-	-	15	12	10	8
Beaver	8	2	0.0	0.0	14	10	0.0	0.0	10	8	0.0	0.0	5	3	0.0	0.0	0	0	-	-	37	23	0	0
Fort Yukon	0	0	-	-	107	6	0.0	0.0	43	6	0.0	0.0	18	14	19.7	5.6	1	0	-	-	169	26	355	197
Venette	11	2	0.0	0.0	37	4	0.0	0.0	6	3	0.0	0.0	3	2	10.0	5.8	3	3	33.3	0.0	60	14	130	34
Chalkyitsik	2	2	0.0	0.0	33	5	0.0	0.0	3	3	0.0	0.0	3	2	0.0	0.0	0	0	-	-	41	12	0	0
District 5	57	16	0.0	0.0	279	55	0.0	0.0	102	35	0.1	0.0	55	40	7.0	1.9	20	16	474.2	106.0	513	162	9,879	4,150
Survey Totals	393	196	0.9	0.3	1,068	186	0.0	0.0	1,067	339	3.0	0.9	241	201	5.2	0.6	51	42	198.6	41.6	2,820	964	14,830	4,623

a The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95 percent confidence interval, CI (95%). Dashes indicate indefinable values.

Appendix C.5. Estimated chinook salmon subsistence use by residents of surveyed villages, by harvest stratum, with village and district totals, Yukon Area, 2000. a

Community	Unknown					Does Not Harvest Salmon					Light Harvester					Medium Harvester					Heavy Harvester					Combined					
	N		Mean		SE	N		Mean		SE	N		Mean		SE	N		Mean		SE	N		Mean		SE	Total	N	n	Total	Est	CI(95%)
Hooper Bay Scammon Bay Coastal District	23	8	0.3	0.2	0.2	83	3	0.0	0.0	0.0	93	19	0.5	0.2	0.2	17	13	31.8	14.9	0.0	2	2	0.5	0.0	0.0	218	45	597	499		
	10	4	4.5	2.8	0.9	24	1	1.0	-	-	53	15	5.2	1.0	-	2	2	17.0	0.0	0.0	0	0	-	-	-	89	22	379	121		
	33	12	1.5	0.9	-	107	4	0.2	0.0	0.0	146	34	2.2	0.4	0.4	19	15	30.3	13.3	0.0	2	2	0.5	0.0	0.0	307	67	976	513		
Sheldon's Point Alakanuk Emmonak Kotlik District 1	5	2	60.0	46.5	0.0	6	3	2.0	1.4	1.4	23	18	15.3	2.6	2.6	4	4	33.3	0.0	0.0	0	0	-	-	-	38	27	798	471		
	22	6	2.5	2.1	0.0	44	4	0.0	0.0	0.0	77	14	13.9	4.6	4.6	9	6	10.3	1.6	0.0	0	0	-	-	-	152	30	1,221	706		
	46	22	2.6	0.8	0.0	60	14	10.0	2.7	2.7	77	33	16.6	2.9	2.9	14	12	21.5	2.5	0.0	1	1	30.0	0.0	0.0	198	82	2,331	559		
District 1	2	1	0.0	-	-	26	4	3.5	2.6	2.6	55	15	18.6	8.3	8.3	9	8	21.6	1.7	0.0	2	2	57.0	0.0	0.0	94	30	1,426	913		
	75	31	6.3	3.2	1.3	136	25	5.2	1.3	1.3	232	80	16.1	2.7	2.7	36	30	20.0	1.1	0.0	3	3	48.0	0.0	0.0	482	169	5,776	1,366		
Mountain Village Pitkas Point St. Mary's	32	18	2.8	0.8	0.8	36	4	4.3	2.1	2.1	87	24	15.5	2.7	2.7	14	12	11.0	1.0	0.0	1	1	15.0	0.0	0.0	170	59	1,761	485		
	0	0	-	-	-	8	7	8.4	1.8	1.8	13	10	26.1	4.0	4.0	6	5	59.8	14.3	0.0	0	0	-	-	-	27	22	766	199		
	33	15	15.3	3.4	3.4	42	3	5.3	3.4	3.4	54	13	13.3	3.0	3.0	16	15	32.8	2.5	0.0	3	3	44.3	0.0	0.0	148	49	2,106	487		
Pilot Station Marshall District 2	21	18	15.8	2.2	2.2	33	9	4.9	2.0	2.0	53	25	30.6	5.0	5.0	4	3	70.7	14.7	0.0	0	0	-	-	-	111	53	2,398	560		
	14	8	7.9	1.8	1.8	15	4	39.8	17.7	17.7	48	11	26.2	4.2	4.2	8	7	36.4	4.1	0.0	1	0	-	-	-	86	30	2,259	659		
	100	57	10.4	1.3	1.3	134	27	9.0	2.4	2.4	255	83	20.7	1.7	1.7	48	42	33.6	2.4	0.0	5	4	29.6	0.0	0.0	542	213	9,290	1,123		
Russian Mission Holy Cross Shageluk District 3	6	5	24.8	3.1	3.1	27	2	1.5	0.5	0.5	29	7	43.2	12.2	12.2	5	5	77.6	0.0	0.0	1	1	65.0	0.0	0.0	68	20	1,898	700		
	1	0	-	-	-	16	3	4.3	2.6	2.6	39	14	21.5	6.5	6.5	6	6	58.3	0.0	0.0	0	0	-	-	-	62	23	1,261	503		
	10	4	8.0	6.2	6.2	7	5	0.0	0.0	0.0	13	10	11.0	2.7	2.7	4	2	33.5	23.7	0.0	6	4	55.3	17.5	0.0	40	25	689	311		
District 3	17	9	13.5	3.8	3.8	50	10	2.2	0.9	0.9	81	31	27.6	5.4	5.4	15	13	58.1	6.3	0.0	7	5	56.6	15.0	0.0	170	68	3,848	917		
Anvik Grayling Kelling Nulato Koyukuk Galena	3	2	7.5	1.4	1.4	15	3	0.7	0.6	0.6	16	5	5.4	2.2	2.2	6	4	33.3	0.7	0.0	1	0	-	-	-	41	14	318	75		
	1	1	0.0	0.0	0.0	11	3	3.7	1.6	1.6	21	6	22.3	6.2	6.2	15	13	24.2	2.4	0.0	0	0	-	-	-	48	23	873	270		
	8	5	29.8	9.5	9.5	6	3	14.0	9.2	9.2	43	12	16.9	4.7	4.7	5	5	27.2	0.0	0.0	0	0	-	-	-	62	25	1,186	442		
District 3	8	4	17.0	4.3	4.3	46	4	7.3	4.3	4.3	36	10	14.8	4.3	4.3	11	9	16.7	2.1	0.0	0	0	-	-	-	101	27	1,186	502		
	3	0	-	-	-	16	2	2.0	1.9	1.9	18	3	2.3	1.1	1.1	3	2	5.5	3.2	0.0	2	2	60.0	0.0	0.0	42	9	211	73		
	44	28	2.2	0.4	0.4	101	7	1.6	1.4	1.4	57	10	5.8	1.9	1.9	11	9	29.9	4.2	0.0	3	2	31.0	17.9	0.0	216	56	1,009	376		
District 3	11	9	0.7	0.2	0.2	45	5	7.4	5.4	5.4	14	4	55.0	36.8	36.8	3	3	28.3	0.0	0.0	4	4	164.3	0.0	0.0	77	25	1,852	1,116		
	9	5	0.4	0.3	0.3	60	5	7.4	3.6	3.6	21	3	0.6	0.6	0.6	6	2	15.0	12.3	0.0	0	0	-	-	-	96	15	552	450		
	1	1	0.0	0.0	0.0	15	10	1.2	0.4	0.4	5	3	7.0	2.2	2.2	2	2	1.0	0.0	0.0	1	1	9.0	0.0	0.0	24	17	64	26		
District 3	12	4	0.5	0.4	0.4	27	3	0.0	0.0	0.0	15	5	1.2	0.4	0.4	5	5	7.6	0.0	0.0	3	3	5.0	0.0	0.0	62	20	77	17		
	0	0	-	-	-	3	3	0.3	0.0	0.0	3	3	2.6	0.0	0.0	1	1	0.0	0.0	0.0	0	0	-	-	-	7	7	9	0		
	11	5	0.0	0.0	0.0	17	10	0.1	0.1	0.1	2	2	0.5	0.0	0.0	0	0	-	-	0.0	0	0	-	-	-	30	17	3	2		
District 4	111	64	4.6	0.8	0.8	362	58	4.0	1.1	1.1	251	66	12.1	2.4	2.4	68	55	21.2	1.4	0.0	14	12	63.9	4.0	0.0	806	255	7,340	1,457		
Tanana Rampart Stevens Village Birch Creek Beaver	21	6	3.5	1.5	1.5	58	14	16.9	14.0	14.0	21	7	14.2	8.6	8.6	7	6	16.3	4.5	0.0	14	9	160.3	31.4	0.0	121	42	3,710	1,843		
	2	0	-	-	-	9	6	2.7	1.0	1.0	3	0	-	-	-	14	8	42.0	12.1	0.0	0	0	-	-	-	28	14	612	332		
	12	4	0.0	0.0	0.0	13	3	0.0	0.0	0.0	10	3	21.0	15.1	15.1	5	4	20.0	6.7	0.0	2	2	90.5	0.0	0.0	42	16	491	304		
District 4	1	0	-	-	-	8	6	1.2	0.4	0.4	6	5	9.2	3.1	3.1	0	0	-	-	0.0	0	0	-	-	-	15	11	65	38		
	8	2	2.5	1.3	1.3	14	10	3.0	0.5	0.5	10	8	10.5	1.3	1.3	5	3	17.0	4.8	0.0	0	0	-	-	-	37	23	252	59		
	0	0	-	-	-	107	6	0.8	0.8	0.8	43	6	17.5	9.5	9.5	18	13	12.0	2.0	0.0	1	0	-	-	-	169	25	1,058	826		
District 4	11	2	0.0	0.0	0.0	37	4	0.8	0.7	0.7	6	3	14.6	10.3	10.3	3	2	0.0	0.0	0.0	3	3	8.7	0.0	0.0	60	14	142	132		
	2	2	0.0	0.0	0.0	33	5	0.2	0.2	0.2	3	2	0.0	0.0	0.0	3	2	0.0	0.0	0.0	0	0	-	-	-	41	11	7	12		
	57	16	1.6	0.6	0.6	279	54	4.2	2.9	2.9	102	34	14.8	4.6	4.6	55	38	20.1	3.3	0.0	20	14	122.6	22.0	0.0	513	156	6,337	2,074		
Survey Totals	393	189	6.1	0.8	0.8	1,068	178	4.4	0.9	0.9	1,067	328	15.1	1.1	1.1	241	193	26.3	1.5	0.0	51	40	79.1	8.9	2,820	928	33,567	3,264			

a The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95 percent confidence interval, CI (95%). Dashes indicate indefinable values.

Appendix C.6. Estimated summer chum salmon subsistence use by residents of surveyed villages, by harvest stratum, with village and district totals, Yukon Area, 2000. a

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total			Combined		
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total	N	n	Total	Est	CI(95%)
Coastal District	23	8	29.1	12.6	83	2	0.0	0.0	93	19	45.0	13.0	17	13	94.6	14.1	2	2	152.5	0.0	218	43	6,710	2,520		
	10	4	43.8	27.8	24	1	0.0	-	53	15	64.5	13.3	2	2	90.0	0.0	0	0	-	-	89	22	4,038	1,489		
	33	12	33.6	12.2	107	3	0.0	0.0	146	34	52.1	9.6	19	15	94.1	12.6	2	2	152.5	0.0	307	65	10,748	2,927		
District 1	5	2	200.0	154.9	6	3	41.3	13.8	23	18	83.9	10.6	4	4	58.5	0.0	0	0	-	-	38	27	3,413	1,000		
	22	6	15.8	9.0	44	4	4.3	2.4	77	14	68.6	17.0	9	6	105.5	15.7	0	0	-	-	152	30	6,770	2,625		
	46	22	7.6	2.0	60	14	46.2	12.3	77	33	66.4	8.5	14	12	122.8	12.3	1	1	332.0	0.0	198	82	10,291	1,975		
District 2	2	1	0.0	-	26	4	85.8	70.5	55	15	80.4	20.2	9	8	129.5	9.9	2	2	206.0	0.0	94	30	8,233	4,205		
	75	31	22.6	10.7	136	25	40.0	14.6	232	80	72.2	8.0	36	30	113.0	6.7	3	3	248.0	0.0	482	169	28,707	5,571		
	32	18	12.0	3.9	36	4	17.3	10.4	87	24	59.1	8.9	14	12	98.8	6.2	1	1	115.0	0.0	170	59	7,651	1,718		
District 3	0	0	-	-	8	7	40.3	5.5	13	10	74.0	8.7	6	5	101.6	21.5	0	0	-	-	27	22	1,894	348		
	33	15	59.2	12.4	42	3	16.7	11.6	54	13	64.4	19.0	16	15	118.8	4.9	3	3	186.3	0.0	148	49	8,594	2,372		
	21	16	48.7	6.4	33	9	22.0	9.0	53	25	49.3	7.5	4	3	151.7	24.2	0	0	-	-	111	53	4,929	1,032		
District 4	14	8	21.3	7.6	15	4	53.8	10.4	48	11	31.0	8.0	8	7	59.0	6.3	1	0	-	-	86	30	3,060	849		
	100	57	36.2	4.6	134	27	23.7	5.2	255	83	53.7	5.5	48	42	103.4	4.3	5	4	134.8	0.0	542	213	26,128	3,238		
	6	5	23.8	7.8	27	2	2.5	0.5	29	7	35.2	9.7	5	5	49.0	0.0	1	1	40.0	0.0	68	20	1,519	562		
District 5	1	0	-	-	16	3	0.0	0.0	39	14	9.2	3.9	6	6	40.8	0.0	0	0	-	-	62	23	607	301		
	10	4	5.0	3.9	7	5	4.0	2.1	13	10	15.1	4.8	4	2	246.0	174.0	6	4	78.8	14.7	40	25	1,731	1,383		
	17	9	11.3	3.6	50	10	1.9	0.4	81	31	19.5	4.0	15	13	98.3	46.4	7	5	73.2	13.0	170	68	3,857	1,523		
District 6	3	2	0.0	0.0	15	3	0.0	0.0	16	5	13.2	9.7	6	4	164.5	54.8	1	0	-	-	41	14	1,198	714		
	1	1	0.0	0.0	11	3	4.7	2.5	21	6	7.0	5.5	15	13	19.0	3.9	0	0	-	-	48	23	483	263		
	8	5	6.0	2.3	6	3	0.7	0.5	43	12	1.4	0.7	5	5	4.0	0.0	0	0	-	-	62	25	133	73		
District 7	8	4	4.8	2.4	46	4	0.5	0.5	36	10	9.5	5.1	11	9	1.3	0.3	0	0	-	-	101	27	418	369		
	3	0	-	-	16	2	1.0	0.9	18	3	0.0	0.0	3	2	2.5	1.4	2	2	90.0	0.0	42	9	204	31		
	44	28	2.3	1.1	101	7	0.0	0.0	57	10	0.0	0.0	11	9	38.9	16.6	3	2	105.0	60.6	216	56	842	513		
District 8	11	9	0.2	0.1	45	5	14.0	13.2	14	4	40.5	33.6	3	3	0.0	0.0	4	4	166.5	0.0	77	25	1,865	1,486		
	9	5	0.0	0.0	60	5	0.0	0.0	21	3	33.3	30.8	6	2	2.5	2.0	0	0	-	-	96	15	715	1,270		
	1	1	0.0	0.0	15	10	8.6	4.8	5	3	20.0	12.6	2	2	0.0	0.0	1	1	850.0	0.0	24	17	1,079	187		
District 9	12	4	0.8	0.4	27	3	2.0	1.9	15	5	1.0	0.8	5	5	50.4	0.0	3	3	441.0	0.0	62	20	1,653	103		
	0	0	-	-	3	3	0.0	0.0	3	3	0.0	0.0	1	1	0.0	0.0	0	0	-	-	7	7	0	0		
	11	5	0.0	0.0	17	10	0.0	0.0	2	2	0.0	0.0	0	0	-	-	0	0	-	-	30	17	0	0		
District 10	111	64	1.8	0.5	362	58	2.5	1.7	251	66	8.5	3.3	68	55	29.5	5.6	14	12	238.1	13.0	806	255	8,590	2,203		
	21	6	0.0	0.0	58	14	0.1	0.1	21	7	14.2	11.6	7	6	92.8	20.8	14	9	190.1	58.2	121	42	3,616	1,694		
	2	0	-	-	9	6	0.0	0.0	3	0	-	-	14	8	3.1	2.1	0	0	-	-	28	14	44	56		
District 11	12	4	0.0	0.0	13	3	0.0	0.0	10	3	0.0	0.0	5	4	0.0	0.0	2	2	25.0	0.0	42	16	50	0		
	1	0	-	-	8	6	0.0	0.0	6	5	0.0	0.0	0	0	-	-	0	0	-	-	15	11	0	0		
	8	2	0.0	0.0	14	10	0.1	0.1	10	8	0.2	0.0	5	3	0.7	0.4	0	0	-	-	37	23	7	5		
District 12	0	0	-	-	107	6	0.0	0.0	43	6	0.0	0.0	18	13	0.0	0.0	1	0	-	-	169	25	0	0		
	11	2	0.0	0.0	37	4	0.0	0.0	6	3	0.0	0.0	3	2	0.0	0.0	3	3	0.0	0.0	60	14	0	0		
	2	2	26.5	0.0	33	5	0.0	0.0	3	2	2.0	1.1	3	2	25.0	14.4	0	0	-	-	41	11	134	85		
District 13	57	16	0.9	0.0	279	54	0.0	0.0	102	34	3.0	2.4	55	38	14.0	2.8	20	14	135.6	41.0	513	156	3,851	1,697		
	393	189	17.5	2.6	1,068	177	9.0	2.1	1,067	328	39.5	2.7	241	193	62.6	3.7	51	40	162.4	16.4	2,820	926	81,881	7,755		

a Households contacted indicates the number of households with complete numbers of dogs information. Includes 95 percent confidence interval, CI (95%) (+/-).

Appendix C.7. Estimated fall chum salmon subsistence use by residents of surveyed villages, by harvest stratum, with village and district totals, Yukon Area, 2000. a

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total			Combined	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total	n	Total	Est	CI(95%) (+/-)
Hooper Bay	23	8	0.0	0.0	83	3	0.0	0.0	93	19	0.5	0.4	17	13	0.0	0.0	2	2	0.0	0.0	218	45	49	86	
Scammon Bay	10	4	0.0	0.0	24	1	0.0	-	53	15	0.2	0.1	2	2	0.0	0.0	0	0	-	-	89	22	11	18	
Coastal District	33	12	0.0	0.0	107	4	0.0	0.0	146	34	0.4	0.3	19	15	0.0	0.0	2	2	0.0	0.0	307	67	60	87	
Sheldon's Point	5	2	0.0	0.0	6	3	0.0	0.0	23	18	4.6	2.1	4	4	0.0	0.0	0	0	-	-	38	27	107	98	
Alakanuk	22	6	0.0	0.0	44	4	0.0	0.0	77	14	9.5	5.6	9	6	5.0	2.9	0	0	-	-	152	30	782	852	
Emmonak	46	22	0.2	0.1	60	14	0.6	0.4	77	33	5.0	2.4	14	12	1.1	0.3	1	1	0.0	0.0	198	82	445	366	
Kotlik	2	1	0.0	-	26	4	0.0	0.0	55	15	29.6	16.5	9	8	1.0	0.3	2	2	25.0	0.0	94	30	1,691	1,780	
District 1	75	31	0.1	0.1	136	25	0.3	0.2	232	80	12.3	4.4	36	30	1.9	0.7	3	3	16.7	0.0	482	169	3,025	2,009	
Mountain Village	32	18	1.1	0.7	36	4	0.0	0.0	87	24	0.8	0.4	14	12	0.0	0.0	1	1	0.0	0.0	170	59	108	82	
Pitkas Point	0	0	-	-	8	7	0.0	0.0	13	10	0.0	0.0	6	5	0.8	0.3	0	0	-	-	27	22	5	4	
St. Mary's	33	15	2.3	1.7	42	3	0.0	0.0	54	13	2.7	2.0	16	15	2.2	0.5	3	3	0.0	0.0	148	49	262	241	
Pilot Station	21	16	0.1	0.1	33	9	0.0	0.0	53	26	0.3	0.2	4	3	0.0	0.0	0	0	-	-	111	54	21	26	
Marshall	14	8	0.0	0.0	15	4	0.0	0.0	48	11	0.0	0.0	8	7	0.0	0.0	1	0	-	-	86	30	0	0	
District 2	100	57	1.2	0.6	134	27	0.0	0.0	255	84	0.9	0.4	48	42	0.8	0.2	5	4	0.0	0.0	542	214	396	256	
Russian Mission	6	5	0.0	0.0	27	3	0.0	0.0	29	7	0.5	0.5	5	5	4.0	0.0	1	1	0.0	0.0	68	21	37	28	
Holy Cross	1	0	-	-	16	3	0.0	0.0	39	14	10.0	5.1	6	6	33.2	0.0	0	0	-	-	62	23	589	395	
Shapeluk	10	4	3.8	2.9	7	5	0.0	0.0	13	10	0.0	0.0	4	2	0.0	0.0	6	4	0.0	0.0	40	25	38	57	
District 3	17	9	2.2	1.7	50	11	0.0	0.0	81	31	5.0	2.4	15	13	14.6	0.0	7	5	0.0	0.0	170	69	664	400	
Anvik	3	2	0.0	0.0	15	3	0.0	0.0	16	5	0.6	0.5	6	4	34.0	10.4	1	0	-	-	41	14	214	123	
Grayling	1	1	0.0	0.0	11	3	0.0	0.0	21	6	7.5	6.3	15	13	8.5	1.8	0	0	-	-	48	23	284	266	
Kallag	8	5	0.0	0.0	6	3	0.0	0.0	43	12	0.0	0.0	5	5	0.0	0.0	0	0	-	-	62	25	0	0	
Niutalo	8	4	0.0	0.0	46	4	0.0	0.0	36	10	0.0	0.0	11	9	0.0	0.0	0	0	-	-	101	27	0	0	
Koyukuk	3	0	-	-	16	2	0.0	0.0	18	3	0.0	0.0	3	2	50.0	28.9	2	2	44.5	0.0	42	9	239	170	
Galena	44	28	5.0	2.7	101	7	0.0	0.0	57	10	0.3	0.1	11	9	4.4	1.3	3	2	97.0	56.0	216	56	579	404	
Ruby	11	9	0.0	0.0	45	5	0.0	0.0	14	4	0.0	0.0	3	3	0.0	0.0	4	4	16.0	0.0	77	25	64	0	
Huslia	9	5	0.0	0.0	60	5	0.0	0.0	21	3	1.6	1.5	6	2	0.0	0.0	0	0	-	-	96	15	35	64	
Hughes	1	1	0.0	0.0	15	10	0.0	0.0	5	3	20.0	12.8	2	2	3.5	0.0	1	1	50.0	0.0	24	17	157	124	
Atlatkaket	12	4	3.8	3.1	27	3	0.0	0.0	15	5	0.0	0.0	5	5	0.0	0.0	3	3	0.0	0.0	62	20	45	72	
Alatna	0	0	-	-	3	3	0.7	0.0	3	3	5.0	0.0	1	1	0.0	0.0	0	0	-	-	7	7	17	0	
Bettles	11	5	0.0	0.0	17	10	0.1	0.1	2	2	0.0	0.0	0	0	-	-	0	0	-	-	30	17	2	2	
District 4	111	64	2.4	1.1	362	56	0.0	0.0	251	66	1.3	0.6	68	55	7.9	1.6	14	12	35.3	12.0	806	255	1,636	550	
Tanana	21	6	1.3	1.1	58	14	0.0	0.0	21	7	2.8	2.3	7	6	8.3	3.2	14	9	520.0	192.3	121	42	7,426	5,279	
Rampart	2	0	-	-	9	6	2.5	1.4	3	0	-	-	14	8	1.9	0.5	0	0	-	-	28	14	49	29	
Stevens Village	12	4	0.0	0.0	13	3	0.0	0.0	10	3	0.0	0.0	5	4	0.0	0.0	2	2	0.0	0.0	42	16	0	0	
Birch Creek	1	0	-	-	8	6	0.3	0.2	6	5	1.6	0.6	0	0	-	-	0	0	-	-	15	11	12	8	
Beaver	8	2	0.0	0.0	14	10	0.0	0.0	10	8	0.0	0.0	5	3	0.0	0.0	0	0	-	-	37	23	0	0	
Fort Yukon	0	0	-	-	107	6	0.0	0.0	43	6	0.0	0.0	18	13	18.5	6.7	1	0	-	-	169	25	332	236	
Venetie	11	2	0.0	0.0	37	4	1.8	1.7	6	3	0.0	0.0	3	2	10.0	5.8	3	3	33.3	0.0	60	14	195	125	
Chalkyitsik	2	2	0.0	0.0	33	5	0.0	0.0	3	2	0.0	0.0	3	2	0.0	0.0	0	0	-	-	41	11	0	0	
District 5	57	16	0.5	0.4	279	54	0.3	0.2	102	34	0.7	0.4	55	38	8.1	2.3	20	14	369.0	135.0	513	156	8,014	5,285	
Survey Totals	393	189	1.2	0.4	1,068	179	0.1	0.1	1,067	329	3.7	1.0	241	193	5.4	0.7	51	40	155.4	52.9	2,820	930	13,795	5,701	

a Households contacted indicates the number of households with complete numbers of dogs information, includes 95 percent confidence interval, CI (95%) (+/-). Dashes indicate indefinable values.

Appendix C.8. Estimated coho salmon subsistence use by residents of surveyed villages, by harvest stratum, with village and district totals, Yukon Area, 2000. a

Community	Unknown			Does Not Harvest Salmon			Light Harvester			Medium Harvester			Heavy Harvester			Total			Combined	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Est	CI(95%) (+/-)
Hooper Bay	23	8	0.3	0.2	83	3	0.0	0.0	93	19	2.4	1.2	17	13	0.2	0.1	218	45	235	234
Scammon Bay	10	4	0.0	0.0	24	1	0.0	-	53	15	0.0	0.0	2	2	0.0	0.0	89	22	4	6
Coastal District	33	12	0.2	0.1	107	4	0.0	0.0	146	34	1.6	0.8	19	15	0.2	0.1	307	67	239	234
Sheldon's Point	5	2	0.0	0.0	6	3	0.0	0.0	23	18	0.0	0.0	4	4	0.0	0.0	38	27	0	0
Alakanuk	22	6	1.3	1.1	44	4	0.0	0.0	77	14	3.7	3.2	9	6	11.7	6.7	152	30	426	503
Emmonak	46	22	0.1	0.1	60	14	0.4	0.2	77	33	0.3	0.1	14	12	0.1	0.0	198	82	54	34
Kotlik	2	1	0.0	-	26	4	0.5	0.5	55	15	0.0	0.0	9	8	0.0	0.0	94	30	33	23
District 1	75	31	0.4	0.3	136	25	0.3	0.1	232	80	1.4	1.0	36	30	2.9	1.7	482	169	513	505
Mountain Village	32	18	0.6	0.2	36	4	0.0	0.0	87	24	0.7	0.3	14	12	0.0	0.0	170	59	83	68
Pitkas Point	0	0	-	-	8	7	0.0	0.0	13	10	3.0	1.0	6	5	16.6	6.8	27	22	139	84
St. Mary's	33	15	0.2	0.2	42	3	0.0	0.0	54	13	0.9	0.5	16	15	7.3	1.0	148	49	173	81
Pilot Station	21	16	0.5	0.2	33	9	0.2	0.2	53	26	0.0	0.0	4	3	0.0	0.0	111	54	18	15
Marshall	14	8	0.5	0.2	15	4	0.0	0.0	48	11	0.0	0.0	8	7	0.0	0.0	86	30	7	6
District 2	100	57	0.4	0.1	134	27	0.1	0.1	255	84	0.6	0.1	48	42	4.5	0.9	542	214	420	125
Russian Mission	6	5	0.0	0.0	27	3	0.0	0.0	29	7	0.4	0.3	5	5	2.4	0.0	68	21	24	21
Holy Cross	1	0	-	-	16	3	0.0	0.0	39	14	0.0	0.0	6	6	11.7	0.0	62	23	70	0
Shageluk	10	4	0.0	0.0	7	5	2.0	1.1	13	10	0.0	0.0	4	2	0.0	0.0	40	25	14	15
District 3	17	9	0.0	0.0	50	11	0.3	0.2	81	31	0.2	0.1	15	13	5.5	0.0	170	69	108	26
Anvik	3	2	0.0	0.0	15	3	0.0	0.0	18	5	0.2	0.1	6	4	25.0	14.4	41	14	153	170
Grayling	1	1	0.0	0.0	11	3	0.0	0.0	21	6	13.3	11.2	15	13	6.2	1.2	48	23	372	465
Kaitag	8	5	0.0	0.0	6	3	0.0	0.0	43	12	0.1	0.1	5	5	0.0	0.0	62	25	7	12
Nulato	8	4	6.3	3.4	46	4	0.0	0.0	36	10	0.0	0.0	11	9	3.1	1.3	101	27	84	60
Koyukuk	3	0	-	-	16	2	0.0	0.0	18	3	0.0	0.0	3	2	11.0	6.4	2	2	52.5	0.0
Galeña	44	28	1.0	0.6	101	7	0.0	0.0	57	10	0.0	0.0	11	9	0.0	0.0	216	56	76	49
Ruby	11	9	0.0	0.0	45	5	0.0	0.0	14	4	0.0	0.0	3	3	0.0	0.0	77	25	173	0
Huslia	9	5	0.0	0.0	60	5	0.8	0.8	21	3	4.0	3.7	6	2	0.0	0.0	96	15	132	177
Hughes	1	1	0.0	0.0	15	10	0.0	0.0	5	3	0.0	0.0	2	2	2.0	0.0	24	17	12	0
Alakaket	12	4	0.0	0.0	27	3	0.0	0.0	15	5	0.0	0.0	5	5	0.0	0.0	62	20	0	0
Alatna	0	0	-	-	3	3	0.0	0.0	3	3	0.0	0.0	1	1	0.0	0.0	7	7	0	0
Bettles	11	5	0.0	0.0	17	10	0.0	0.0	2	2	0.0	0.0	0	0	-	-	30	17	0	0
District 4	111	64	0.9	0.3	362	58	0.1	0.1	251	66	1.5	0.9	68	55	4.6	1.4	806	255	1,147	533
Tanana	21	6	0.0	0.0	58	14	0.0	0.0	21	7	2.8	2.3	7	6	78.3	29.6	121	42	5,448	4,140
Rampart	2	0	-	-	9	6	0.0	0.0	3	0	-	-	14	8	0.0	0.0	28	14	0	0
Stevens Village	12	4	0.0	0.0	13	3	0.0	0.0	10	3	0.0	0.0	5	4	0.0	0.0	42	16	0	0
Birch Creek	1	0	-	-	8	6	0.0	0.0	6	5	0.0	0.0	0	0	-	-	15	11	0	0
Beaver	8	2	0.0	0.0	14	10	0.0	0.0	10	8	0.0	0.0	5	3	0.0	0.0	37	23	0	0
Fort Yukon	0	0	-	-	107	6	0.0	0.0	43	6	0.0	0.0	18	13	7.7	4.1	169	25	138	143
Venette	11	2	0.0	0.0	37	4	0.0	0.0	6	3	0.0	0.0	3	3	0.0	0.0	60	14	0	0
Chalkyitsik	2	2	0.0	0.0	33	5	0.0	0.0	3	2	0.0	0.0	3	2	0.0	0.0	41	11	0	0
District 5	57	16	0.0	0.0	279	54	0.0	0.0	102	34	0.6	0.4	55	38	12.5	4.0	513	156	5,586	4,142
Survey Totals	393	189	0.4	0.1	1,068	179	0.1	0.1	1,067	329	1.1	0.3	241	193	5.8	1.0	2,820	930	8,013	4,215

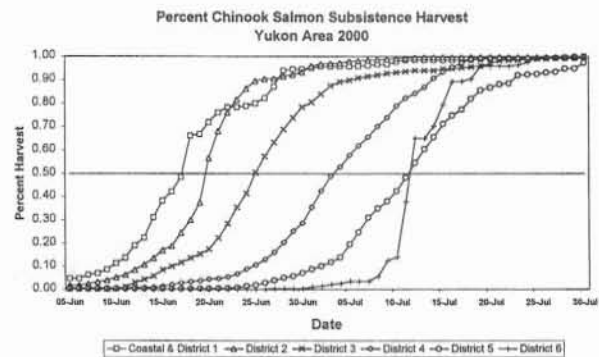
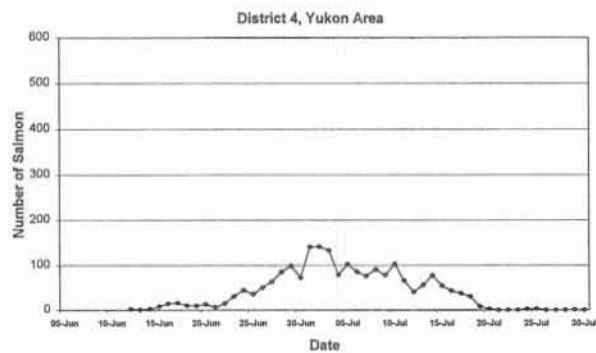
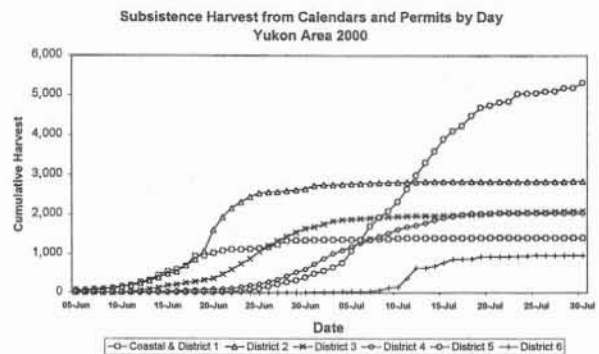
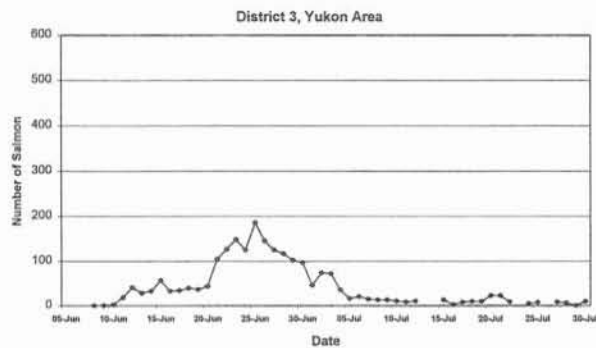
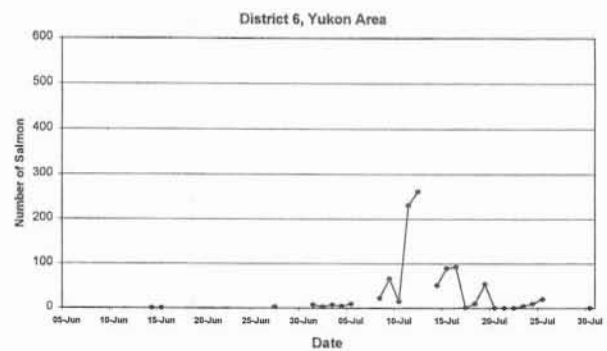
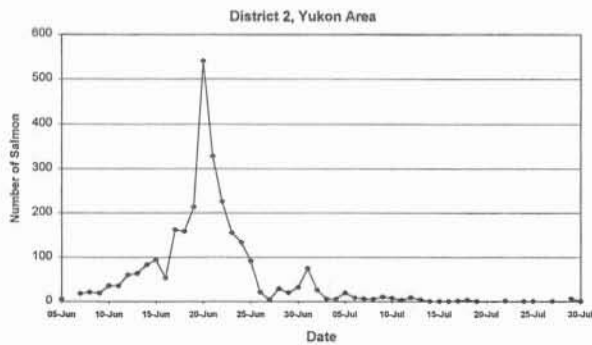
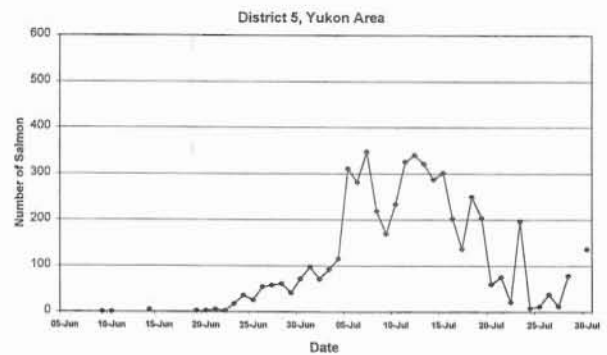
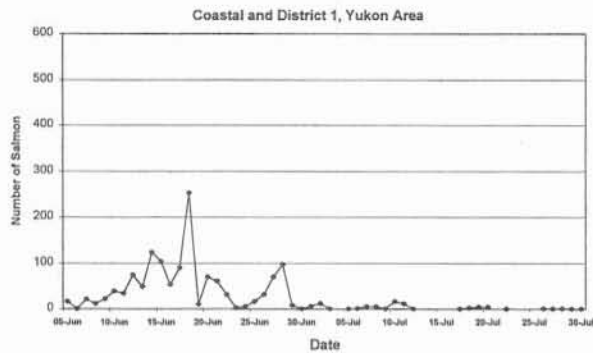
a Households contacted indicates the number of households with complete numbers of dogs information, includes 95 percent confidence interval, CI (95%) (+/-). Dashes indicate indefinable values.

Appendix C.9. Estimated number of salmon given away by subsistence fishermen to another subsistence household and corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2000.

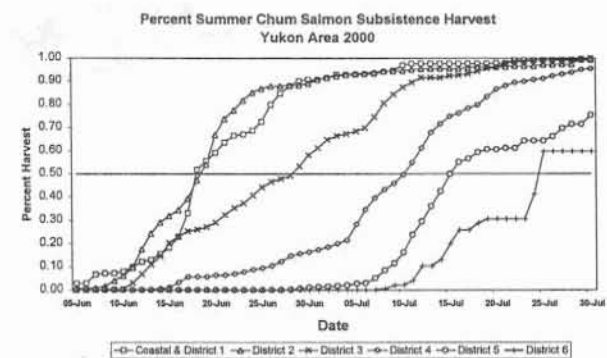
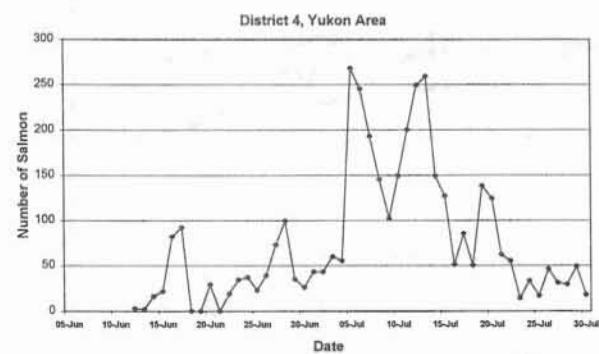
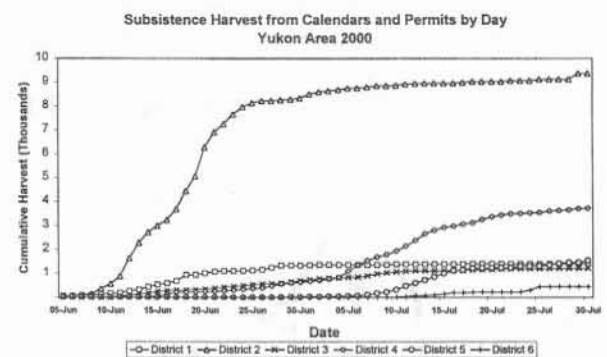
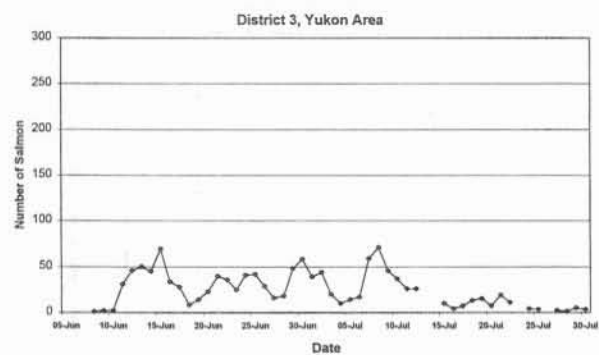
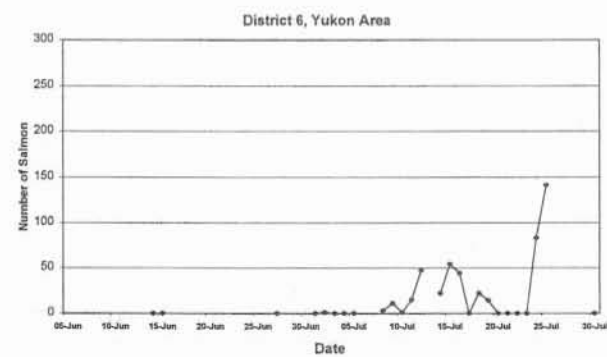
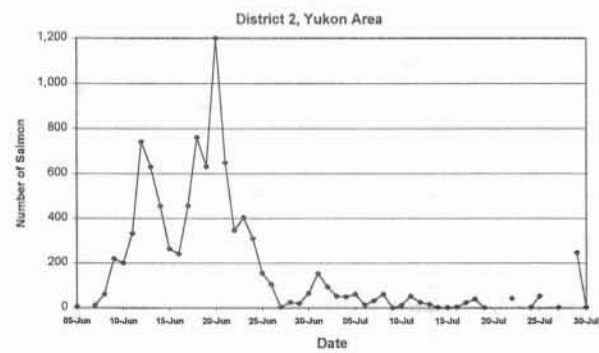
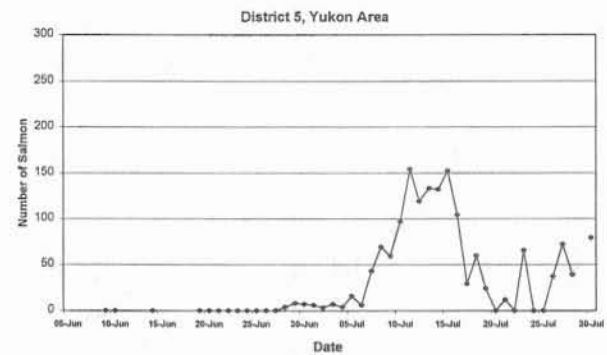
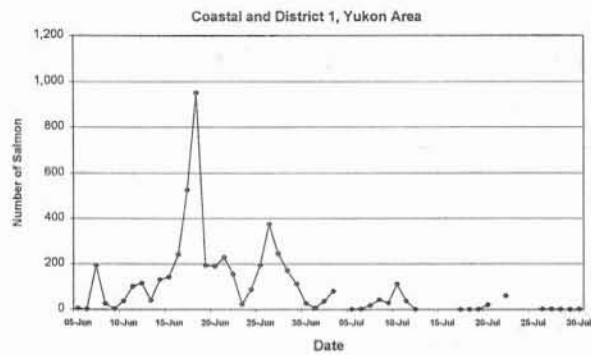
Community	Total Households	Households Contacted ^a	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
			Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)
Hooper Bay	218	45	31	43	74	60	0	0	0	0
Scammon Bay	89	23	34	28	130	120	0	0	0	0
Coastal District	307	68	65	52	204	134	0	0	0	0
Sheldon's Point	38	27	97	70	213	142	0	0	0	0
Alakanuk	152	30	55	98	75	107	275	488	275	488
Emmonak	198	82	30	26	705	883	4	6	4	6
Kotlik	94	30	4	6	1,589	2,054	0	0	0	0
District 1	482	169	186	123	2,582	2,243	279	488	279	488
Mountain Village	170	59	56	55	599	611	0	0	12	9
Pikas Point	27	22	13	5	166	64	0	0	0	0
St. Mary's	148	50	346	277	858	984	0	0	54	39
Pilot Station	111	54	146	96	869	335	0	0	0	0
Marshall	86	30	389	630	414	588	0	0	0	0
District 2	542	215	950	697	2,706	1,335	0	0	66	40
Russian Mission	68	21	64	29	148	84	0	0	0	0
Holy Cross	62	23	173	176	84	131	56	87	0	0
Shageluk	40	25	27	12	28	29	0	29	14	15
District 3	170	69	264	179	260	158	56	87	14	15
Anvik	41	14	156	95	705	637	107	111	153	170
Grayling	48	23	34	28	10	12	0	0	0	0
Kaitag	62	25	112	112	0	0	0	0	7	12
Nulato	101	27	154	154	39	42	0	0	10	14
Koyukuk	42	9	30	35	0	0	0	0	0	0
Galeana	216	56	224	272	19	12	6	10	3	4
Ruby	77	25	350	476	632	1,164	0	0	0	0
Huslia	96	15	14	25	0	0	0	0	0	0
Hughes	24	17	14	11	0	0	0	0	0	0
Allakaket	62	20	36	17	728	103	0	0	0	0
Alatna	7	7	1	0	0	0	2	0	0	0
Bottles	30	17	3	2	0	0	2	2	0	0
District 4	806	255	1,117	591	2,133	1,332	117	112	173	171
Tanana	121	42	1,065	1,586	537	296	146	115	60	96
Rampart	28	14	14	11	0	0	49	29	0	0
Stevens Village	42	16	25	33	0	0	0	0	0	0
Birch Creek	15	11	4	4	0	0	3	3	0	0
Beaver	37	23	56	24	0	0	0	0	0	0
Fort Yukon	169	26	55	52	0	0	0	0	0	0
Venette	60	14	39	51	0	0	65	120	0	0
Chalkyitsik	41	11	7	12	0	0	0	0	0	0
District 5	513	157	1,265	1,588	537	296	263	169	60	96
Survey Totals	2,820	933	3,847	1,846	8,422	2,952	714	535	592	527

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

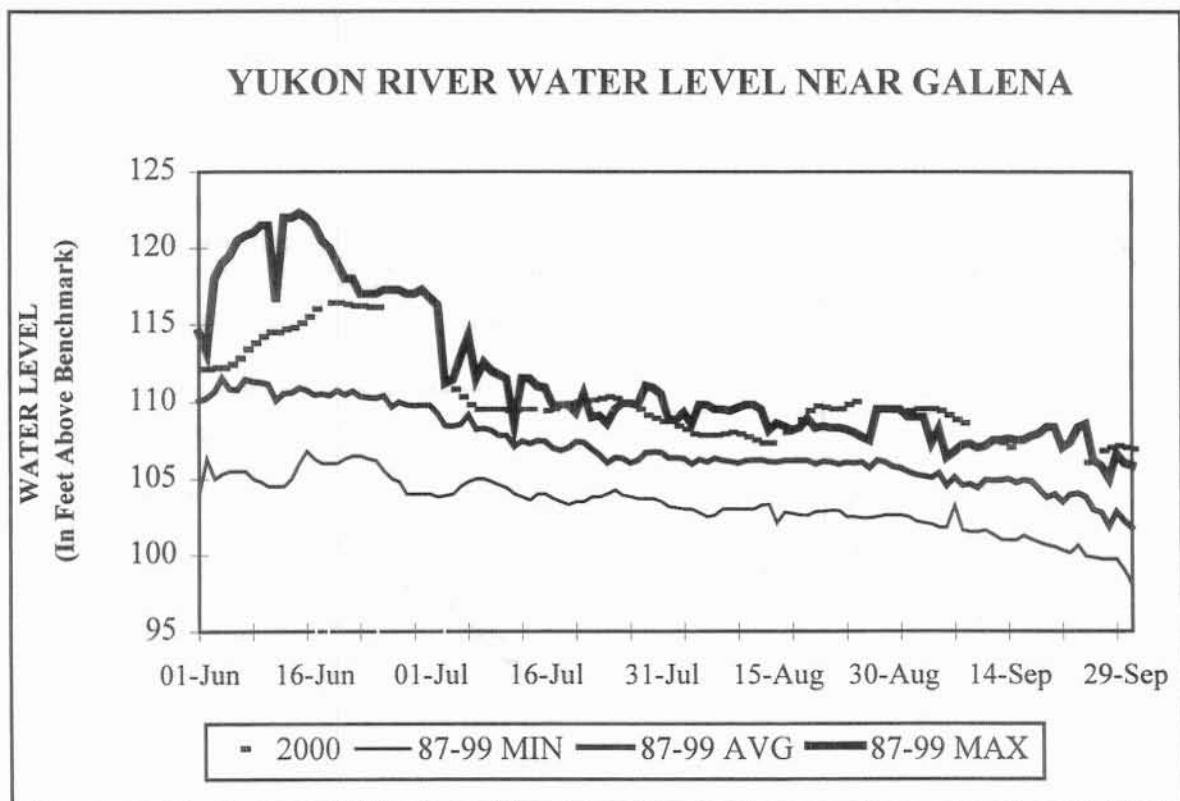
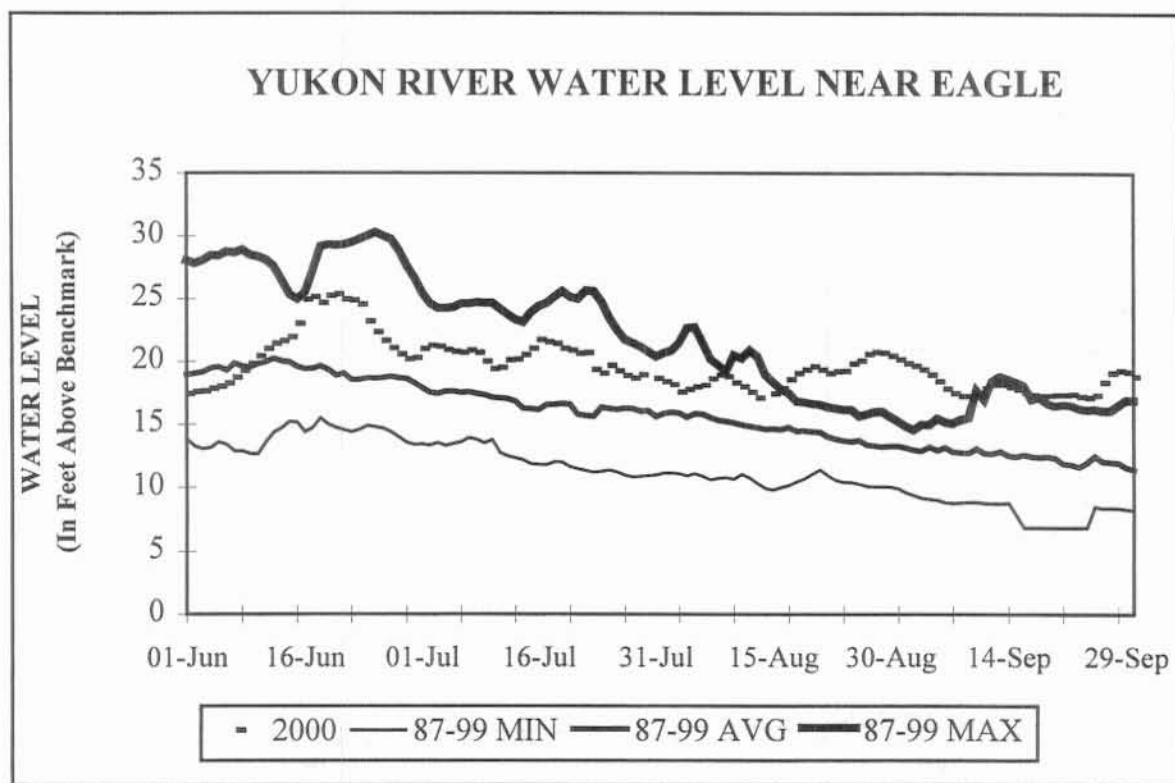
Appendix C.10. Chinook salmon daily, cumulative, and percent subsistence harvests by district by day based on calendar and permit returns, Yukon Area, 2000.

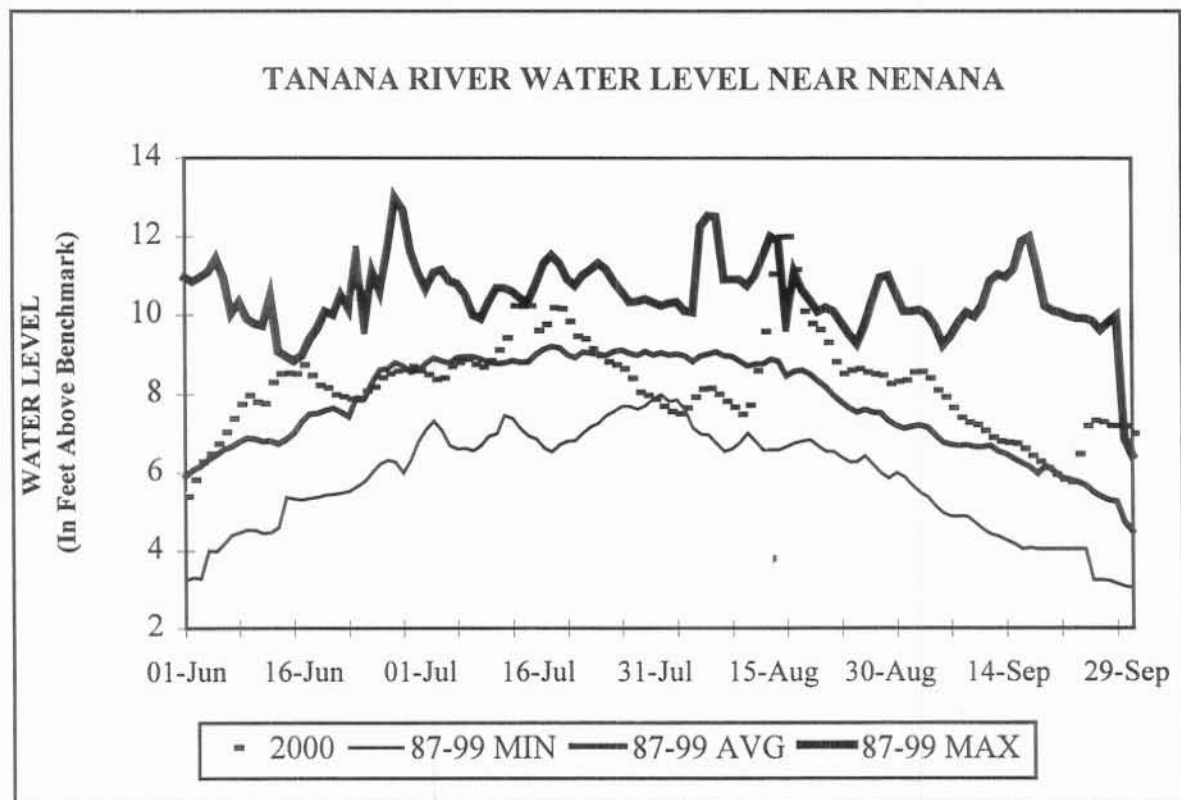
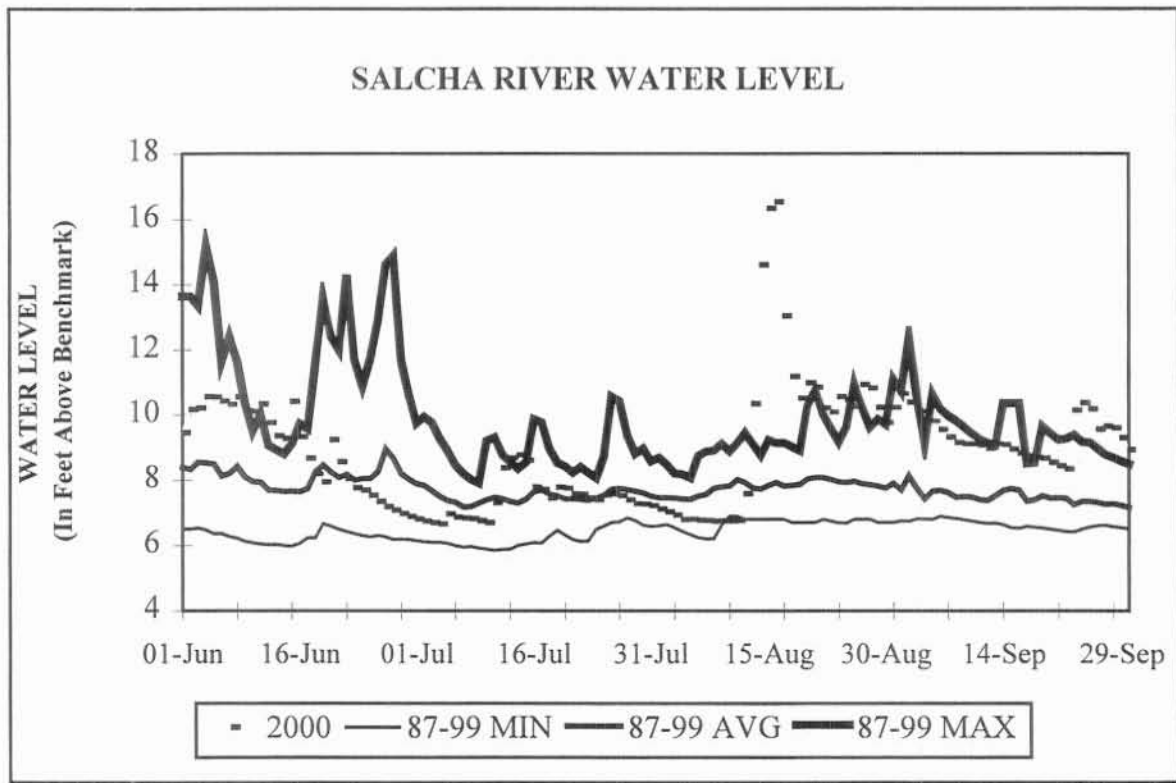


Appendix C.11. Summer chum salmon daily, cumulative, and percent subsistence harvests by district, by day based on calendar and permit returns, Yukon Area, 2000.



Appendix C.12. Water levels for select locations, 2000 compared to the minimum, average, and maximum, from 1987 to 1999, Yukon River drainage.





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